RRMM
ARCHITECTS

ADDENDUM NO. 2

CITY OF HOPEWELL, VIRGINIA
HOPEWELL POLICE STATION AND FIRE STATION

September 16, 2016

This Addendum forms a part of the Construction Documents and modifies the original bidding documents dated August 12, 2016.

The information in this Addendum supersedes any contradictory information or omission set forth in the Contract Documents.

Where any component of the Contract Documents is modified or deleted by this Addendum, the unaltered components of that Section, Article, or Drawing shall remain in effect.

Acknowledge receipt of this Addendum by inserting its number and date in the Proposal Form. Failure to do so may subject Bidder to disqualification.

This Addendum consists of seven (7) pages, one (1) of each updated Statement of Special Inspections for both the Fire and Police Station, one (1) substitution request form with response, one (1) sketch sheet SKA-2 for a TV location added and storefront type change at A119 at the Fire Station, five (5) SKS sheets for fire station and five (5) SKS sheets for police station for additional structural pedestals for the closed circuit coolers, one (1) revised civil sheet (Police- C-300), two (2) new technical specification section for the Fire Station (Section 084123 "Fire-Resistant Aluminum-Framed Entrances and Storefronts" and (Section 062023 "Interior Finish Carpentry"), one (1) architectural sketch sheets SKA-3 for a revised storefront frame SF-16, and one (1) sketch sheet SKA-1 for more information on the casework at the Armory for the Police Station.

PERTAINING TO THE SPECIFICATIONS

1.1 SECTION 014101 – STATEMENT OF SPECIAL INSPECTIONS (BOTH BUILDINGS):

1. Agent 2 on the Statement of Special Inspections has been updated.

1.2 SECTION 042000- UNIT MASONRY:

1. 1.7B notes to build a mockup 8'x 8' of typical wall area. Separate mockups are required for both the Fire Station and the Police Station. The mockup will need to include all of the components of the wall from the stud to the exterior face material. Per the spec, the mockup will include brick, the precast medallion (at the police station), storefront, a control joint and GFRC panels.

1.3 SECTION 062023- INTERIOR FINISH CARPENTRY:

1. This specification section has been added to address the cushion at section 5/A-804.

1.4 SECTION 064116- PLASTIC-LAMINATE-FACED ARCHITECTURAL CABINETS:

1. AWI procedures must be followed.

2. Labels will not be required if shop is not AWI certified as long as AWI procedures are followed.

1.5 SECTION 064219- PLASTIC-LAMINATE-FACED WOOD PANELING:

1. AWI procedures must be followed.

1.6 SECTION 072119- FOAMED-IN-PLACE INSULATION: Proposed substitution:

1. JM Corbond III Closed-Cell Spray Polyurethane Foam Insulation is an acceptable substitution (See attached substitution request form).

1.7 SECTION 074213.19- INSULATED METAL WALL PANELS:

1. Per 1.6B, a mockup panel needs to be provided. This can be part of the final construction. The mock up panel needs to be the size of the window system (at any location preferred). The water test only needs to be provided at the installed final construction.

2. The Contractor is to engage the testing agency for the water test. The water test should be performed at one location on each side of the building.

3. Aluminum composite panels shown glazed into storefront and curtainwall framing as shown on A-602 (Police Station) and A-604 and A-605 (Fire Station) shall receive a Mica Fluoropolymer finish per the specification.

1.8 SECTION 078123- INTUMESCENT FIREPROOFING (FIRE STATION):

1. In Paragraph 1.5B, the mockup can be part of the final construction. The mockup should include all aspects of the structure needing fireproofing (i.e. deck, joists, beams, columns, etc.) with a minimum of a 10x10 foot area.

1.9 SECTION 081416- FLUSH WOOD DOORS:

1. Premium Grade A doors is acceptable.

2. In Paragraph 2.2A- AWI quality certification labels will not be required as long as AWI procedures are followed.

1.10 SECTION 084113- ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS:

1. The exterior aluminum doors required to be thermally broken and will have a nominal 2" thickness.

1.11 SECTION 087100- DOOR HARDWARE:

1. In paragraph 1.4A, the installer must have five years of successful experience with door

hardware installations similar to this project.

2. In paragraph 1.4A, the material supplier's Architectural Hardware Consultant must be certified by the Door and Hardware Institute and in good standing.

1.12 SECTION 092900- GYPSUM BOARD:

1. 3.7D3 notes Level 5 finish for all board exposed to view. This is required.

1.13 SECTION 096723 – RESINOUS FLOORING:

1. Proposed substitutions:
   a. Key Urecon SLT Quartz Resin is an acceptable substitution for the Basis of Design Dur-A-Flex.
   b. C.A. Reed Epoxy Floors Urecrete-SL is an acceptable substitution but a custom color would need to be used with this product.

2. Core testing shall be done per flooring manufacturer's recommendation.

1.14 SECTION 096813- TILE CARPETING:

1. Paragraph 1.7 notes the carpet installer is to be a CFI Commercial II level installer. It will be acceptable for an exception to this requirement to provide references/experience of the installer without this certification.

1.15 SECTION 101423- PANEL SIGNAGE: Substitution Request:

1. APPENX, Inc. signs is an acceptable substitution for the Basis of Design 2/90 Sign Systems as long as the finishes specified are offered.

1.16 SECTION 102226 – OPERABLE PARTITIONS (FIRE STATION):

1. Finish shall be selected from manufacturer's standard vinyl options.

2. Proposed substitutions: Hufcor Summit 645V Operable Partitions will not be a substitution for Skyfold because of the clearance issues the product cannot meet.

1.17 SECTION 230548- VIBRATION AND SEISMIC CONTROL FOR HVAC:

1. In paragraph 3.2C, D, E, and F, the MEP equipment, fixtures, and material shall meet the seismic loading per ASCE 7-10.

1.18 DIVISION 28- ELECTRONIC SAFETY AND SECURITY:

1. Substitutions for Software House C-Cure 9000, American Dynamics cameras, and Exacq Vision are acceptable.

1.19 SECTION 321416 – BRICK UNIT PAVING:

1. Paragraph 2.2 A: Revise to read "Concrete Edge Restraint".

2. Paragraph 3.3 F: Revise to read "Provide concrete edge restraints as indicated on drawings. Install edge restraints before placing unit pavers. Remove paragraphs 3.3.F.1 and 3.3.F.2.

3. Paragraph 3.4 F.1: Revise to read "After concrete edge restraints are installed and there is a completed surface or before surface is exposed to rain.

PERTAINING TO THE SCOPE OF WORK

2.1 GENERAL QUESTIONS:

1. We respectfully request a unit price for removing and replacing unsuitable soils with good material.
   Response: ***This is a lump sum project. There are no unit prices for this project.***

2. We respectfully request a unit price for removal of any rock and replacement with good material.
   Response: ***This is a lump sum project. There are no unit prices for this project.***

3. If there is a conflict in the drawing and specification which one take precedence.
   Response: ***The specification should take precedence but please make the architect aware of the conflicts in question. These documents together are meant to be complimentary.***

4. Please identify the location of the weather barriers on the drawings.
   Response: ***The foamed-in-placed insulation also acts as a barrier.***

5. Both the fire station and police station have a specification for EIFS, but there does not appear to be any EIFS on the elevations. On the police station EFS is noted as the exterior soffits. At the fire station, not finish is noted on the exterior soffits.
   a. Please advise if there is any EIFS anywhere.
   b. Please advise if the exterior soffits at the police station receive an EFS finish.
   c. Please advise if the exterior soffits at the fire station receive an EFS finish.
   Response: ***Provide EFS at Fire Station and Police Station; there is no EIFS. Specification 072413 is incorrectly titled in the footer.***

6. All the site light fixtures, poles, and concrete foundations indicated on the civil drawings (L300 series drawings) for both projects needs to be furnished and installed as part of the contract. It is the general contractors responsibility to have this in the contract and their choice of which contractor/subcontractor will do the work.

PERTAINING TO THE DRAWINGS

3.1 SHEET C-100 (POLICE STATION):

1. Per the Arm Gate Notes, Liftmaster BG770 is the Basis of Design and is included in the contract.

3.2 SHEET C-300 (POLICE STATION):

1. Concrete edge restraints have been added to the plan.

2. The pedestrian paver area, the BRICK PAVERS DETAIL – DRIVE AISLE and the BRICK PAVERS DETAIL – PLAZA have been revised.

3. Border pavers set in mortar have been removed from the details.

3.3 SHEET C-300 (FIRE STATION):

1. At column line 7F, it is noted that the monument sign is NIC. The sign location is for future and is not included in this contract.

2. The segmental block retaining wall details are shown on sheet C-101.

3.4 SHEET A-101 (POLICE STATION):

1. Key Notes No. 20- The transaction drawer and the intercom system are included in the contract.

3.5 SHEET A-101 (FIRE STATION):

1. Fire Marshal Evidence Storage A119 shall have SF-5 in lieu of SF-6.

2. Room A119- Reference SKA-2 for TV location.

3.6 SHEET A-201 (BOTH BUILDINGS):

1. The building signage details calls for 1" thick dimensional letters. Aluminum or Stainless Steel Fabricated letters are acceptable. A back on the letters is preferred because they stand off the wall 1 inch. This product would also apply to the monument sign dimensional letters at the Police Station.

3.7 SHEET A-401 (POLICE STATION):

1. All shower niches will be SS4 with ¼" material.

3.8 SHEET A-403 (FIRE STATION):

1. All shower niches will be SS3 with ¼" material.

3.9 SHEET A-601 (POLICE STATION):

1. Door A117 is to be a bullet resistant wood door with a hollow metal frame. Refer to Item 2.3 Bullet Resistant Doors. Specification 083461 is incorrectly numbered in the footer.

3.10 SHEET A-602 (POLICE STATION):

1. Sheet A-602, aluminum storefront frame type SF-5 are noted to be bullet resistant at three locations. Aluminum storefront framing CANNOT be constructed to be bullet resistant. Please provide specification on what bullet resistant framing is to be provided and what level of bullet-resistance it is to have (level 1, 2, 3, etc.). In addition, aluminum composite panels shown in these frames do NOT have any bullet resistance. Please provide specification on bullet resistant panels that would need to be provided for these frames.
Response: ***Provide bullet resistant glazing only as required. The frames are not required to be bullet resistant.***

3.11 SHEET A-604 (FIRE STATION):

1. Refer to enclosed new technical specification Section 084123 "Fire-Resistant Aluminum-Framed Entrances and Storefronts" for fire-rated aluminum storefront framing and glazing assemblies. Refer to architectural sketch sheet SKA-3 for the revised SF-16 elevations. There will no longer be aluminum storefront at these windows due to the unavailability foe the rated construction it needs to have. All details associated with this window shall reflect the change. Refer to LS-102 for required fire ratings.

3.12 SHEET A-701 (FIRE STATION):

1. Room A119 Fire Marshal Evidence Storage needs a roller shade.

2. Room A132 Fitness Room at SF-8 needs a roller shade.

3. Refer to detail 1/A-701 for separation between LVT-1 and LVT-2 in rooms A238, A239, and A240.

4. The custom logo in room A100 will be provided by the owner.

5. Reference General Finish Note I. for roller shade locations. Reference Addendum #1 for additional revisions.

3.13 SHEET A-701 (POLICE STATION):

1. Detail 1/A-701 explains the layout of the LVT-1 and LVT-2 in room A159.

3.14 SHEET A-801 (POLICE STATION):

1. At Room A150, elevation 8/A-801 is noted as Stainless steel cabinets and countertop. Attached SKA-1 included more information on these cabinets.

3.15 SHEET A-902 (FIRE STATION):

1. In Corridor A202, the rubber floor is only on the ramp to the outside.

3.16 SHEET M-402 (POLICE STATION) & SHEET M-403 (FIRE STATION):

1. On Police Station drawing M-402 and Fire Station drawing M-403, the Closed Circuit Cooling tower details indicate to see structural drawings for the steel supports. However, there is nothing indicated on the structural drawings for these supports? Can you please provide additional info?
Response: ***Attached are the SKS revision sheets for both the fire and police stations with the structural details needed.***

3.17 SHEET E-001 (POLICE STATION):

1. Security System Key Pad: CHANGE "E-401" to "E-501".

3.18 SHEET E-201:

1. Room A119: PROVIDE duplex receptacle for TV. Install on wall common with room A119. Connect to homerun "L1-48". Install receptacle behind television +48", AFF. Coordinate mounting height with the owner prior to rough-in.

2. In the rack detail, provide Patch Panels and spaces for Owner provided Switches (alternating)

with Side Cable Management as indicated on drawing sheet E-201.

3.19 SHEET E-401 (FIRE STATION):

1. Room A128 Training/EOC: The exact location of floor boxes need to be coordinated with the owner before rough in.

2. Construction note 16: CHANGE one (1) 1" conduit to two (2) 1" conduits.

3. Room A119: ADD TV outlet on wall common with room A118.

4. Room A128: CHANGE subscript for all floor box from "AV" to "AV1".

5. Room A138: CHANGE subscript for floor box from "AV1" to "AV".

END OF ADDENDUM NO. 2

City of Hopewell
Division of Code Enforcement

300 N Main St., Hopewell, VA 23860
(804) 541-2226 Fax (804) 541-2318

STATEMENT OF SPECIAL INSPECTIONS

(Updated 7-14-15)

In accordance with the International Building Code Chapter 17

Project Name: (Required)	Hopewell Fire Station
Project Address: (Required)	Hopewell, VA
General Contractor: (Required)	TBD
Permit Number: (Required)	

Registered Design Professional in Responsible Charge

Per the Virginia Uniform Statewide Building Code, Virginia Construction Code (VUSBC) the Registered Design Professional in Responsible Charge must prepare the statement of special inspections. The Registered Design Professional in Responsible Charge shall be responsible for:

Preparing this statement of special inspections per VUSBC 1704;

Verification of fabricator's in plant quality control processes per VCC 1704.2.5.2 and 1705.2 for in plant fabricated structural assemblies when in plant special inspections specific to this project will not be performed;

Verifying that the inspections and testing agencies and individuals listed in the attached schedule are qualified in accordance with the VUSBC to conduct the test or inspections that they are assigned;

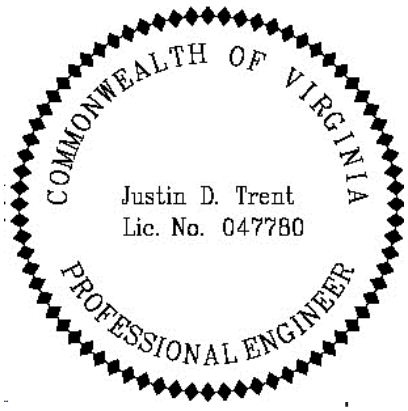
Submitting reports of any discrepancies discovered during the construction process that were not corrected by the contractor prior to completion of that phase of work;

Submitting a final report of special inspections, at completion of the special inspection process for the job, documenting completion of the required special inspections and correction of any discrepancies discovered;

Review, coordination and confirmation that the work inspected was done in conformance to approved construction documents.

Registered Design Professional in Responsible Charge

Name: (Required)	Justin D. Trent, P.E.
Firm:	Stroud, Pence & Associates, Ltd.
Signature: (Required)	Justin D. Trent
Date: (Required)	August 12, 2016



STATEMENT OF SPECIAL INSPECTIONS
SCHEDULE OF THIRD PARTY AGENCIES
PERFORMING PROFESSIONAL SERVICES, TESTING AND INSPECTIONS

PROFESSIONAL SERVICES, TESTING AND INSPECTION AGENTS	
Please enter the Firm(s) or individual(s): name, address, and telephone number	
Agent #1	Special Inspector: Stroud, Pence & Associates, Ltd.
	5032 Rouse Drive, Ste 200, Virginia Beach, VA 23452
	757-671-8626
Agent #2	Materials Testing Lab: TBD
	TBD
	TBD
Agent #3	Mechanical and Electrical Component Inspector: TBD
	TBD
	TBD
Agent #4	

STATEMENT OF SPECIAL INSPECTIONS

SCHEDULE OF SERVICES, INSPECTIONS AND TESTS

In accordance with the International Building Code Chapter 17

Specify the inspections, materials testing or services that will be performed by checking the box to the left of each row title. Space is provided in each section to list additional services that may be provided.

☒ Inspection of fabricators 1704.2.5

Inspection of items fabricated off-site in a fabricators shop. If not checked, the registered design professional in responsible charge must verify that the fabricator has written quality control manuals and periodic auditing of fabrication process by an approved agency in accordance with VCC section 1704.2.5.2. Additional services may be listed below or attached:

Refer to attached Detailed Schedule of Special Inspections

☒ Steel construction 1705.2

Inspections for steel elements of buildings and structures including off-site fabrication, steel frame and framing details, welding, high-strength bolts and items listed in VCC table 1705.2.2. Inspection frequency shall be in accordance with VCC table 1705.2.2. Additional services may be listed below or attached:

Refer to attached Detailed Schedule of Special Inspections

☒ Concrete construction 1705.3

Inspection and testing of concrete construction as required and detailed by VCC table 1705.3 and VCC chapter 19 including reinforcing steel, post tension slabs, anchor bolts, concrete mix, curing, placement, prestressing, formwork, materials, grouting and strength. Inspection frequency shall be in accordance with VCC table 1705.3. A Hopewell City inspector must inspect all concrete slab preparations prior to placement of concrete. Additional services may be listed below or attached:

Refer to attached Detailed Schedule of Special Inspections

☒ Concrete strength testing ACI 318: 5.6

Concrete strength testing is required when the total volume of a given class of concrete placed is 50 cubic yards or greater, even if concrete construction is exempted from special inspections per the exemptions to VCC section 1705.11. Concrete testing involves taking concrete samples, molding cylinders, curing and testing the concrete samples in accordance with the procedures specified in ACI 318: 5.6. Additional services may be listed below or attached:

Refer to attached Detailed Schedule of Special Inspections

☒ Masonry construction 1705.4

Inspections and frequency of inspections of masonry construction are required and detailed by TMS 402-11/ACI 530.1-11/ASCE 5-11 section 1.19 and TMS 602-11/ACI 530.1-11/ASCE 6-11 section 1.6. Empirically designed masonry structures per VCC section 2109 that are classified as Risk Category I, II or III and prescriptively constructed foundations per VCC section 1807.1.6 are exempt per section 1705.4. Additional services may be listed below or attached:

Refer to attached Detailed Schedule of Special Inspections

☐ Wood construction 1705.5

In plant inspection of fabricated wood structural assemblies in accordance with VCC section 1704.2.5 and/or field inspection of high load diaphragms. Additional services may be listed below or attached:

☐ Metal-plate-connected wood trusses 1705.5.2

Inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing are in accordance with approved truss submittal package as required per VCC section 2303.4.1.3.

☒ Soils/Footing inspections 1705.6

Footing inspections are required to evaluate existing site soil conditions, fill placement and load-bearing requirements in accordance with VCC table 1705.6 and the site-specific soils report for the project. Footing inspections to include: footing location, excavation depth and width, bearing capacity, reinforcing steel size and placement, anchor bolts, and hairpins as applicable. Inspection frequency shall be in accordance with VCC table 1705.6. Additional services may be listed below or attached:

☐ Concrete Encased Grounding Electrode 2005 National Electric Code Section 250.52 (A)(3)

Grounding electrode installation and bond to the footing reinforcing steel. **If this inspection is not performed by the special inspector a Hopewell City inspector must perform this inspection prior to placement of concrete.**

Refer to attached Detailed Schedule of Special Inspections

☐ Driven deep foundations 1705.7

Inspection and testing of Driven deep foundation systems in accordance with VCC table 1705.7 and the site specific soils report for the project. Inspection frequency shall be in accordance with VCC table 1705.7. Additional services may be listed below or attached:

☐ Cast-in-place deep foundation 1705.8

Inspection and testing of Cast-in-place foundation systems in accordance with VCC table 1705.8 and the site specific soils report for the project. Inspection frequency shall be in accordance with VCC table 1705.8. Additional services may be listed below or attached:

☐ Helical pile foundations 1705.9

Inspection continuously performed during installation with site-specific soils report and approved construction documents for the project.

☒ Sprayed fire-resistant materials 1705.13 & 1705.14

Inspection of fire resistive materials sprayed onto structural framing members including surface preparation, application, temperature, material thickness, density and bond strength. Mastic and intumescent fire-resistant coatings must be inspected per AWCI 12-B. A Hopewell City inspector must inspect all structural elements protected with sprayed fire-resistive materials prior to concealment. Additional services may be listed below or attached:

Refer to attached Detailed Schedule of Special Inspections

☒ Exterior insulation and finish systems (EIF) 1705.15

Inspection of non-drainable EIFS installation application in accordance with the manufacturer's installation instructions. Additional services may be listed below or attached:

☐ Water-resistive barrier coating 1705.15.1

Inspection of water-resistive barrier coating complying with (ASTM E 2570) installed over a sheathing substrate.

Refer to attached Detailed Schedule of Special Inspections

☐ Special Cases 1705.11

Inspection of unusual or special structural materials, methods or systems that is determined on a case by case basis due to the uniqueness, complexity or proprietary nature of the materials, methods or systems. Specific details and inspections shall be listed below or attached:

☐ Special inspection for smoke control 1705.17

Inspection of smoke control systems, components and installation to include leakage testing, recording device locations, pressure differential testing, flow measurements, air balancing, detection and control verification. Specific details and inspections shall be listed below or attached:

☒ Other –

This area is provided for services not addressed in a standard section of this form. List below or attach:

Refer to attached Detailed Schedule of Special Inspections

Seismic design category C or higher buildings addendum

DO NOT SUBMIT THIS PAGE FOR BUILDINGS OF SEISMIC DESIGN CATEGORY A OR B!

If the building is seismic design category C or higher, additional inspections, tests, a Statement of Contractor Responsibility and observations may be required. The majority of structures built in Hopewell Virginia are seismic design category A or B and the items addressed on this page are not applicable. If the building is seismic design category C or higher provide:

☒ Seismic resistance inspections for category C or higher
Sections 1704.3.2 and 1705.11. (ATTACH Complete list)

Refer to attached Detailed Schedule of Special Inspections and comply with section 1705.11.6.

☒ Seismic resistance testing for category C or higher
Sections 1705.12 through 1705.12.4. (ATTACH Complete list)

Refer to attached Detailed Schedule of Special Inspections and comply with section 1705.12.3.

☐ Structural Observations for category D or higher
Structural observations per section 1704.5 for structures assigned S.D.C.- D, E or F

☐ Contractor Statement of Responsibility section
VCC section 1704.4. (ATTACH Statement)

Additional services may be attached.

DETAILED SCHEDULE OF SPECIAL INSPECTIONS

MATERIAL/ACTIVITY	TYPE OF INSPECTION	APPLICABLE TO THIS PROJECT			
		Y/C/P/N	EXTENT/REFERENCE	AGENT	COMPLETED
GENERAL					
Pre-construction conference	Meeting to discuss Special Inspection procedures	Y	Scheduled by SI with the Contractor prior to commencement of work	1, 2	
EARTHWORK					
Site preparation	Field testing and inspection	C	Field Review; IBC 1705.6	2	
Fill material	Review submittals, field testing and inspection	Y	Field Review; IBC 1705.6	2	
Fill compaction	In-place density tests	C	Field Review; IBC 1705.6	2	
Foundation sub-grade	Field inspection of foundation subgrade prior to placement of concrete	Y	Field Review; IBC 1705.6	2	
DEEP FOUNDATION ELEMENTS					
Materials	Review product, sizes, and lengths	N	IBC 1705.8, 1810.3.2	N/A	
Test piles	Monitor installation of test piles	N	IBC 1705.8, 1810.3	N/A	
Installation	Monitor drilling, placement, of production piles, including cut off and tip elevation	N	IBC 1705.8, 1810.3	N/A	
Pile load test	Monitor pile load test	N	IBC 1705.8, 1810.3	N/A	
CONCRETE					
Materials	Review product supplied versus certificates of compliance and mix design	Y	Submittal & Field Review; IBC 1705.3; ACI 318: Ch. 19, 20 and 26; IBC 1904.1	2	
Installation of reinforcing steel, including prestress tendons, anchor rods and welding	Field inspection of reinforcement placement	C	Field Review; ACI 318: Ch. 20, 25 and 26; AWS D1.4; IBC 1705.3	1	
Formwork installation	Field inspection	N	Field Review; ACI 318: Ch. 26.11; IBC 1704.4	N/A	
Concreting operations and placement	Field inspection of placement/sampling – 5 sets per each mix type minimum	P	Field Review; ACI 318: Ch. 26.5, 26.12, 26.13; ASTM C 172, C 31; IBC 1705.3	2	
Concrete curing	Field inspection of curing process	Y	Field Review; ACI 318: Ch. 26.5, 26.13; IBC 1705.3	2	
Concrete strength	Evaluation of concrete strength	Y	Laboratory Testing; ACI 318: Ch. 26.5, 26.12, 26.13; IBC 1705.3	2	
Application of forces for prestressed concrete	Field inspection	N	Field Review; ACI 318: Ch. 26.9, 26.10, 26.13; IBC 1705.3	N/A	
Grouting of prestress tendons	Field inspection	N	Field Review; ACI 318: Ch. 26.10, 26.13; IBC 1705.3	N/A	
PRECAST CONCRETE					
Verify fabrication/quality control procedures	In-plant inspection of fabrication/quality control procedures**	N	ACI 318: Ch. 26, IBC 1704.2	N/A	
Erection and installation	Review submittals and as-built assemblies; Field inspection of in-place precast	N	ACI 318: Ch. 26.9, 26.13; IBC Table 1704.4	N/A	

(Revision date 7/30/15)

MATERIAL/ACTIVITY	TYPE OF INSPECTION	APPLICABLE TO THIS PROJECT			
		Y/C/P/N	EXTENT/REFERENCE	AGENT	COMPLETED
MASONRY (Level _C_; Based on Building Risk Category _IV_)					
Materials	Review of products supplied versus certificate of compliance and material submitted	Y	Submittal & Field Review; ACI 530.1; ASCE 6; TMS 602; IBC 1705.4, 1708	1(Sub), 2 (Field)	
Strength	Testing/review of strength	Y	Submittal & Field Review; ACI 530.1; ASCE 6; TMS 602; IBC 1705.4, 2105.2.2, 2105.3	1(Sub), 2 (Field)	
Mortar and Grout	Inspection of proportioning and mixing. Placement of mortar only.	Y	Field Review; IBC 1704.5, ACI 530.1; ASCE 6; TMS 602	2	
Grout placement, including prestressing grout	Verification to ensure compliance	Y	Field Review; IBC 1705.4; ACI 530.1; ASCE 6; TMS 602	2	
Grout space	Verification to ensure compliance	C	Field Review; IBC 1705.4; ACI 530.1; ASCE 6; TMS 602	2	
Mortar, grout and prism specimens	Observe preparation	C	Field Review; IBC 1705.4; ACI 530.1; ASCE 6; TMS 602	2	
Reinforcement, prestressing tendons, and connections	Inspect condition, size, location, and spacing	C	Field Review; IBC 1705.4, ACI 530.1; ASCE 5; ASCE 6; TMS 402, 602	1 and 2	
Welding of reinforcing bars	Inspection and testing of welds	N	Field Review; IBC 1705.4, ACI 530.1; ASCE 5; TMS 402	N/A	
Prestressing force	Verify application and measurement	N	Field Review; IBC 1705.4, ACI 530.1; ASCE 6; TMS 602	N/A	
Protection	Inspect procedures for protection during cold and hot weather	Y	Field Review; IBC 1705.4, 2104.3, 2104.4; ACI 530.1; ASCE 6; TMS 602	2	
Anchorage	Inspection of anchorages	C	Field Review; ACI 530.1; ASCE 5; ASCE 6; TMS 402; TMS 602; IBC 1705.4	1	
Masonry installation	Inspection of placement of masonry and joints	Y	Field Review; ACI 530.1; ASCE 6; TMS 602; IBC 1705.4	2	
STRUCTURAL STEEL					
Verify fabrication/quality control procedures	In-plant inspection of fabrication/quality control procedures**	Y	IBC 1705.2	1	
Bolts, nuts, and washers – materials	Material identification markings Review of certificate of compliance	Y	Submittal & Field Review; IBC 1705.2; ASTM; AISC 360, Ch. N	1	
Bolts, nuts, washers – installation	Inspection of in-place high-strength bolts, bearing type, and slip critical connections	Y	Submittal & Field Review; IBC 1705.2, AISC 360 Ch. N	1	
Structural steel – materials	Material identification markings and review of Certificate of Compliance	Y	Submittal & Field Review; IBC 1705.2, 1708.4, ASTM A6, A568; AISC 360 Ch. N	1	
Structural steel details – installation	Inspection of member locations, structural details for bracing, connections, stiffening	Y	Submittal & Field Review; IBC 1705.2; AISC 360 Ch. N	1	
Weld filler materials and welder certification	Review of identification markings, certificate of compliance, and welder certifications	Y	Submittal & Field Review; IBC 1705.2; AISC 360 Ch. N	1	
Welds	Inspection and testing of welds	Y	Field Review; IBC 1705.2; AWS D1.1, D1.; AISC 360, Ch. N	1 and 2	
Cold-formed steel framing	Inspection details of cold-formed steel framing per shop drawings.	Y	Field Review; IBC 1705.2	1	

MATERIAL/ACTIVITY	TYPE OF INSPECTION	APPLICABLE TO THIS PROJECT			
		Y/C/P/N	EXTENT/REFERENCE	AGENT	COMPLETED
WOOD					
Verify fabrication/quality control procedures	In-plant inspection of fabrication/quality control procedures**	N	IBC 1704.2.5, 1705	N/A	
Light Framed Wood Construction	Review as-built assemblies; Inspection of sheathing, framing size, nail diameter and length, number of fastener lines, and fastener spacing.	N	IBC 1705.5	N/A	
Metal Plate Connected wood trusses (60'+)	Approved bracing with submittal	N	IBC 1705.5.5.2	N/A	
High-Load Diaphragms- Installation	Review submittal and as-built assemblies; Inspection of sheathing, framing size, nail diameter and length, number of fastener lines, and fastener spacing.	N	IBC 1705.5.1	N/A	
SPRAYED CEMENTITIOUS AND MINERAL FIBER FIRE RESISTIVE MATERIAL					
Structural member surface conditions	Field Review of surface conditions prior to application	Y	AWCI 12-B; IBC 1705.14	2	
Application/thickness	Field review of application operations and thickness	Y	ASTM E605; AWCI 12-B; IBC 1705.14	2	
Mastic & Intumescent Fire Resistant Coating	Field review of application operations and thickness	Y	AWCI 12-B; IBC 1705.15	2	
EXTERIOR INSULATION AND FINISH SYSTEMS					
Applications not over CMU or Concrete	Field Review of application/installation	Y	ASTM E2570; IBC 1705.16	2	
SPECIAL CASES – Cold Formed Metal Framing					
Alternative Materials and Systems	*As requested by Building Official, review system and installation*	Y	IBC 1705.1.1	1	
MAIN WIND FORCE RESISTING SYSTEM					
Wind requirements	Review of the system components and installation	N	IBC 1704.3.3, 1705.10	N/A	
SEISMIC FORCE RESISTING SYSTEMS					
Seismic requirements	Review of the designated seismic systems and seismic force resistance systems	Y	IBC 1704.3.2, 1705.11.6, 1705.12.3	3	
SMOKE CONTROL					
Special Inspection of smoke control systems	Leakage testing and recording of device location. pressure difference testing, flow measurement and detection, and control verification	N	IBC 1705.18	N/A	

INSPECTION AGENTS	FIRM	ADDRESS	TELEPHONE
1. Special Inspector:	Stroud, Pence & Associates	5032 Rouse Drive, Suite 200, Virginia Beach, VA 23462	757-671-8626
2. Materials and Testing Laboratory:	Froehling & Robertson, Inc.	3015 Dumbarton Road, Richmond, VA 23228	804-264-2701
3. Mechanical and Electrical Seismic Inspector:	Thompson Consulting Engineers	22 Enterprise Parkway, Suite 200, Hampton, VA 23666	757-599-4415
4. (Additional Agents?)			

Note: * The Qualifications of the Special Inspector and Testing Laboratories are subject to the Approval of the Building Official.
** Inspection of quality control procedures required only if fabricator is not regularly inspected by an independent inspection agency.

City of Hopewell
Division of Code Enforcement

300 N Main St., Hopewell, VA 23860
(804) 541-2226 Fax (804) 541-2318

STATEMENT OF SPECIAL INSPECTIONS

(Updated 7-14-15)

In accordance with the International Building Code Chapter 17

Project Name: (Required)	Hopewell Police Station
Project Address: (Required)	Hopewell, VA
General Contractor: (Required)	TBD
Permit Number: (Required)	

Registered Design Professional in Responsible Charge

Per the Virginia Uniform Statewide Building Code, Virginia Construction Code (VUSBC) the Registered Design Professional in Responsible Charge must prepare the statement of special inspections. The Registered Design Professional in Responsible Charge shall be responsible for:

Preparing this statement of special inspections per VUSBC 1704;

Verification of fabricator's in plant quality control processes per VCC 1704.2.5.2 and 1705.2 for in plant fabricated structural assemblies when in plant special inspections specific to this project will not be performed;

Verifying that the inspections and testing agencies and individuals listed in the attached schedule are qualified in accordance with the VUSBC to conduct the test or inspections that they are assigned;

Submitting reports of any discrepancies discovered during the construction process that were not corrected by the contractor prior to completion of that phase of work;

Submitting a final report of special inspections, at completion of the special inspection process for the job, documenting completion of the required special inspections and correction of any discrepancies discovered;

Review, coordination and confirmation that the work inspected was done in conformance to approved construction documents.

Registered Design Professional in Responsible Charge

Name: (Required)	Justin D. Trent, P.E.
Firm:	Stroud, Pence & Associates, Ltd.
Signature: (Required)	Justin D. Trent
Date: (Required)	August 12, 2016

COMMONWEALTH OF VIRGINIA
Justin D. Trent
Lic. No. 047780
PROFESSIONAL ENGINEER

STATEMENT OF SPECIAL INSPECTIONS
SCHEDULE OF THIRD PARTY AGENCIES
PERFORMING PROFESSIONAL SERVICES, TESTING AND INSPECTIONS

PROFESSIONAL SERVICES, TESTING AND INSPECTION AGENTS	
Please enter the Firm(s) or individual(s): name, address, and telephone number	
Agent #1	Special Inspector: Stroud, Pence & Associates, Ltd.
	5032 Rouse Drive, Ste 200, Virginia Beach, VA 23452
	757-671-8626
Agent #2	Materials Testing Lab: TBD
	TBD
	TBD
Agent #3	Mechanical and Electrical Component Inspector: TBD
	TBD
	TBD
Agent #4	

STATEMENT OF SPECIAL INSPECTIONS

SCHEDULE OF SERVICES, INSPECTIONS AND TESTS

In accordance with the International Building Code Chapter 17

Specify the inspections, materials testing or services that will be performed by checking the box to the left of each row title. Space is provided in each section to list additional services that may be provided.

☒ Inspection of fabricators 1704.2.5

Inspection of items fabricated off-site in a fabricators shop. If not checked, the registered design professional in responsible charge must verify that the fabricator has written quality control manuals and periodic auditing of fabrication process by an approved agency in accordance with VCC section 1704.2.5.2. Additional services may be listed below or attached:

Refer to attached Detailed Schedule of Special Inspections

☒ Steel construction 1705.2

Inspections for steel elements of buildings and structures including off-site fabrication, steel frame and framing details, welding, high-strength bolts and items listed in VCC table 1705.2.2. Inspection frequency shall be in accordance with VCC table 1705.2.2. Additional services may be listed below or attached:

Refer to attached Detailed Schedule of Special Inspections

☒ Concrete construction 1705.3

Inspection and testing of concrete construction as required and detailed by VCC table 1705.3 and VCC chapter 19 including reinforcing steel, post tension slabs, anchor bolts, concrete mix, curing, placement, prestressing, formwork, materials, grouting and strength. Inspection frequency shall be in accordance with VCC table 1705.3. A Hopewell City inspector must inspect all concrete slab preparations prior to placement of concrete. Additional services may be listed below or attached:

Refer to attached Detailed Schedule of Special Inspections

☒ Concrete strength testing ACI 318: 5.6

Concrete strength testing is required when the total volume of a given class of concrete placed is 50 cubic yards or greater, even if concrete construction is exempted from special inspections per the exemptions to VCC section 1705.11. Concrete testing involves taking concrete samples, molding cylinders, curing and testing the concrete samples in accordance with the procedures specified in ACI 318: 5.6. Additional services may be listed below or attached:

Refer to attached Detailed Schedule of Special Inspections

☒ Masonry construction 1705.4

Inspections and frequency of inspections of masonry construction are required and detailed by TMS 402-11/ACI 530.1-11/ASCE 5-11 section 1.19 and TMS 602-11/ACI 530.1-11/ASCE 6-11 section 1.6. Empirically designed masonry structures per VCC section 2109 that are classified as Risk Category I, II or III and prescriptively constructed foundations per VCC section 1807.1.6 are exempt per section 1705.4. Additional services may be listed below or attached:

Refer to attached Detailed Schedule of Special Inspections

☐ Wood construction 1705.5

In plant inspection of fabricated wood structural assemblies in accordance with VCC section 1704.2.5 and/or field inspection of high load diaphragms. Additional services may be listed below or attached:

☐ Metal-plate-connected wood trusses 1705.5.2

Inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing are in accordance with approved truss submittal package as required per VCC section 2303.4.1.3.

☒ Soils/Footing inspections 1705.6

Footing inspections are required to evaluate existing site soil conditions, fill placement and load-bearing requirements in accordance with VCC table 1705.6 and the site-specific soils report for the project. Footing inspections to include: footing location, excavation depth and width, bearing capacity, reinforcing steel size and placement, anchor bolts, and hairpins as applicable. Inspection frequency shall be in accordance with VCC table 1705.6. Additional services may be listed below or attached:

☐ Concrete Encased Grounding Electrode 2005 National Electric Code Section 250.52 (A)(3)

Grounding electrode installation and bond to the footing reinforcing steel. **If this inspection is not performed by the special inspector a Hopewell City inspector must perform this inspection prior to placement of concrete.**

Refer to attached Detailed Schedule of Special Inspections

☐ Driven deep foundations 1705.7

Inspection and testing of Driven deep foundation systems in accordance with VCC table 1705.7 and the site specific soils report for the project. Inspection frequency shall be in accordance with VCC table 1705.7. Additional services may be listed below or attached:

☐ Cast-in-place deep foundation 1705.8

Inspection and testing of Cast-in-place foundation systems in accordance with VCC table 1705.8 and the site specific soils report for the project. Inspection frequency shall be in accordance with VCC table 1705.8. Additional services may be listed below or attached:

☐ Helical pile foundations 1705.9

Inspection continuously performed during installation with site-specific soils report and approved construction documents for the project.

☒ Sprayed fire-resistant materials 1705.13 & 1705.14

Inspection of fire resistive materials sprayed onto structural framing members including surface preparation, application, temperature, material thickness, density and bond strength. Mastic and intumescent fire-resistant coatings must be inspected per AWCI 12-B. A Hopewell City inspector must inspect all structural elements protected with sprayed fire-resistive materials prior to concealment. Additional services may be listed below or attached:

Refer to attached Detailed Schedule of Special Inspections

☒ Exterior insulation and finish systems (EIF) 1705.15

Inspection of non-drainable EIFS installation application in accordance with the manufacturer's installation instructions. Additional services may be listed below or attached:

☐ Water-resistive barrier coating 1705.15.1

Inspection of water-resistive barrier coating complying with (ASTM E 2570) installed over a sheathing substrate.

Refer to attached Detailed Schedule of Special Inspections

☐ Special Cases 1705.11

Inspection of unusual or special structural materials, methods or systems that is determined on a case by case basis due to the uniqueness, complexity or proprietary nature of the materials, methods or systems. Specific details and inspections shall be listed below or attached:

☐ Special inspection for smoke control 1705.17

Inspection of smoke control systems, components and installation to include leakage testing, recording device locations, pressure differential testing, flow measurements, air balancing, detection and control verification. Specific details and inspections shall be listed below or attached:

☒ Other –

This area is provided for services not addressed in a standard section of this form. List below or attach:

Refer to attached Detailed Schedule of Special Inspections

Seismic design category C or higher buildings addendum

DO NOT SUBMIT THIS PAGE FOR BUILDINGS OF SEISMIC DESIGN CATEGORY A OR B!

If the building is seismic design category C or higher, additional inspections, tests, a Statement of Contractor Responsibility and observations may be required. The majority of structures built in Hopewell Virginia are seismic design category A or B and the items addressed on this page are not applicable. If the building is seismic design category C or higher provide:

☒ Seismic resistance inspections for category C or higher
Sections 1704.3.2 and 1705.11. (ATTACH Complete list)

Refer to attached Detailed Schedule of Special Inspections and comply with section 1705.11.6.

☒ Seismic resistance testing for category C or higher
Sections 1705.12 through 1705.12.4. (ATTACH Complete list)

Refer to attached Detailed Schedule of Special Inspections and comply with section 1705.12.3.

☐ Structural Observations for category D or higher
Structural observations per section 1704.5 for structures assigned S.D.C.- D, E or F

☐ Contractor Statement of Responsibility section
VCC section 1704.4. (ATTACH Statement)

Additional services may be attached.

DETAILED SCHEDULE OF SPECIAL INSPECTIONS

MATERIAL/ACTIVITY	TYPE OF INSPECTION	APPLICABLE TO THIS PROJECT			
		Y/C/P/N	EXTENT/REFERENCE	AGENT	COMPLETED
GENERAL					
Pre-construction conference	Meeting to discuss Special Inspection procedures	Y	Scheduled by SI with the Contractor prior to commencement of work	1, 2	
EARTHWORK					
Site preparation	Field testing and inspection	C	Field Review; IBC 1705.6	2	
Fill material	Review submittals, field testing and inspection	Y	Field Review; IBC 1705.6	2	
Fill compaction	In-place density tests	C	Field Review; IBC 1705.6	2	
Foundation sub-grade	Field inspection of foundation subgrade prior to placement of concrete	Y	Field Review; IBC 1705.6	2	
DEEP FOUNDATION ELEMENTS					
Materials	Review product, sizes, and lengths	N	IBC 1705.8, 1810.3.2	N/A	
Test piles	Monitor installation of test piles	N	IBC 1705.8, 1810.3	N/A	
Installation	Monitor drilling, placement, of production piles, including cut off and tip elevation	N	IBC 1705.8, 1810.3	N/A	
Pile load test	Monitor pile load test	N	IBC 1705.8, 1810.3	N/A	
CONCRETE					
Materials	Review product supplied versus certificates of compliance and mix design	Y	Submittal & Field Review; IBC 1705.3; ACI 318: Ch. 19, 20 and 26; IBC 1904.1	2	
Installation of reinforcing steel, including prestress tendons, anchor rods and welding	Field inspection of reinforcement placement	C	Field Review; ACI 318: Ch. 20, 25 and 26; AWS D1.4; IBC 1705.3	1	
Formwork installation	Field inspection	N	Field Review; ACI 318: Ch. 26.11; IBC 1704.4	N/A	
Concreting operations and placement	Field inspection of placement/sampling – 5 sets per each mix type minimum	P	Field Review; ACI 318: Ch. 26.5, 26.12, 26.13; ASTM C 172, C 31; IBC 1705.3	2	
Concrete curing	Field inspection of curing process	Y	Field Review; ACI 318: Ch. 26.5, 26.13; IBC 1705.3	2	
Concrete strength	Evaluation of concrete strength	Y	Laboratory Testing; ACI 318: Ch. 26.5, 26.12, 26.13; IBC 1705.3	2	
Application of forces for prestressed concrete	Field inspection	N	Field Review; ACI 318: Ch. 26.9, 26.10, 26.13; IBC 1705.3	N/A	
Grouting of prestress tendons	Field inspection	N	Field Review; ACI 318: Ch. 26.10, 26.13; IBC 1705.3	N/A	
PRECAST CONCRETE					
Verify fabrication/quality control procedures	In-plant inspection of fabrication/quality control procedures**	N	ACI 318: Ch. 26, IBC 1704.2	N/A	
Erection and installation	Review submittals and as-built assemblies; Field inspection of in-place precast	N	ACI 318: Ch. 26.9, 26.13; IBC Table 1704.4	N/A	

(Revision date 3/23/11)

MATERIAL/ACTIVITY	TYPE OF INSPECTION	APPLICABLE TO THIS PROJECT			
		Y/C/P/N	EXTENT/REFERENCE	AGENT	COMPLETED
MASONRY (Level _C_; Based on Building Risk Category _IV_)					
Materials	Review of products supplied versus certificate of compliance and material submitted	Y	Submittal & Field Review; ACI 530.1; ASCE 6; TMS 602; IBC 1705.4, 1708	1(Sub), 2 Field	
Strength	Testing/review of strength	Y	Submittal & Field Review; ACI 530.1; ASCE 6; TMS 602; IBC 1705.4, 2105.2.2, 2105.3	1(Sub, 2 Field)	
Mortar and Grout	Inspection of proportioning and mixing. Placement of mortar only.	Y	Field Review; IBC 1704.5, ACI 530.1; ASCE 6; TMS 602	2	
Grout placement, including prestressing grout	Verification to ensure compliance	Y	Field Review; IBC 1705.4; ACI 530.1; ASCE 6; TMS 602	2	
Grout space	Verification to ensure compliance	C	Field Review; IBC 1705.4; ACI 530.1; ASCE 6; TMS 602	2	
Mortar, grout and prism specimens	Observe preparation	C	Field Review; IBC 1705.4; ACI 530.1; ASCE 6; TMS 602	2	
Reinforcement, prestressing tendons, and connections	Inspect condition, size, location, and spacing	C	Field Review; IBC 1705.4, ACI 530.1; ASCE 5; ASCE 6; TMS 402, 602	1 and 2	
Welding of reinforcing bars	Inspection and testing of welds	N	Field Review; IBC 1705.4, ACI 530.1; ASCE 5; TMS 402	N/A	
Prestressing force	Verify application and measurement	N	Field Review; IBC 1705.4, ACI 530.1; ASCE 6; TMS 602	N/A	
Protection	Inspect procedures for protection during cold and hot weather	Y	Field Review; IBC 1705.4, 2104.3, 2104.4; ACI 530.1; ASCE 6; TMS 602	2	
Anchorage	Inspection of anchorages	C	Field Review; ACI 530.1; ASCE 5; ASCE 6; TMS 402; TMS 602; IBC 1705.4	1	
Masonry installation	Inspection of placement of masonry and joints	Y	Field Review; ACI 530.1; ASCE 6; TMS 602; IBC 1705.4	2	
STRUCTURAL STEEL					
Verify fabrication/quality control procedures	In-plant inspection of fabrication/quality control procedures**	Y	IBC 1705.2	1	
Bolts, nuts, and washers – materials	Material identification markings Review of certificate of compliance	Y	Submittal & Field Review; IBC 1705.2; ASTM; AISC 360, Ch. N	1	
Bolts, nuts, washers – installation	Inspection of in-place high-strength bolts, bearing type, and slip critical connections	Y	Submittal & Field Review; IBC 1705.2, AISC 360 Ch. N	1	
Structural steel – materials	Material identification markings and review of Certificate of Compliance	Y	Submittal & Field Review; IBC 1705.2, 1708.4, ASTM A6, A568; AISC 360 Ch. N	1	
Structural steel details – installation	Inspection of member locations, structural details for bracing, connections, stiffening	Y	Submittal & Field Review; IBC 1705.2; AISC 360 Ch. N	1	
Weld filler materials and welder certification	Review of identification markings, certificate of compliance, and welder certifications	Y	Submittal & Field Review; IBC 1705.2; AISC 360 Ch. N	1	
Welds	Inspection and testing of welds	Y	Field Review; IBC 1705.2; AWS D1.1, D1.; AISC 360, Ch. N	1 and 2	
Cold-formed steel framing	Inspection details of cold-formed steel framing per shop drawings.	Y	Field Review; IBC 1705.2	1	

MATERIAL/ACTIVITY	TYPE OF INSPECTION	APPLICABLE TO THIS PROJECT			
		Y/C/P/N	EXTENT/REFERENCE	AGENT	COMPLETED
WOOD					
Verify fabrication/quality control procedures	In-plant inspection of fabrication/quality control procedures**	N	IBC 1704.2.5, 1705	N/A	
Light Framed Wood Construction	Review as-built assemblies; Inspection of sheathing, framing size, nail diameter and length, number of fastener lines, and fastener spacing.	N	IBC 1705.5	N/A	
Metal Plate Connected wood trusses (60'+)	Approved bracing with submittal	N	IBC 1705.5.5.2	N/A	
High-Load Diaphragms- Installation	Review submittal and as-built assemblies; Inspection of sheathing, framing size, nail diameter and length, number of fastener lines, and fastener spacing.	N	IBC 1705.5.1	N/A	
SPRAYED CEMENTITIOUS AND MINERAL FIBER FIRE RESISTIVE MATERIAL					
Structural member surface conditions	Field Review of surface conditions prior to application	N	AWCI 12-B; IBC 1705.14	N/A	
Application/thickness	Field review of application operations and thickness	N	ASTM E605; AWCI 12-B; IBC 1705.14	N/A	
Mastic & Intumescent Fire Resistant Coating	Field review of application operations and thickness	N	AWCI 12-B; IBC 1705.15	N/A	
EXTERIOR INSULATION AND FINISH SYSTEMS					
Applications not over CMU or Concrete	Field Review of application/installation	Y	ASTM E2570; IBC 1705.16	2	
SPECIAL CASES – Cold Formed Metal Framing					
Alternative Materials and Systems	*As requested by Building Official, review system and installation*	Y	IBC 1705.1.1	1	
MAIN WIND FORCE RESISTING SYSTEM					
Wind requirements	Review of the system components and installation	N	IBC 1704.3.3, 1705.11	N/A	
SEISMIC FORCE RESISTING SYSTEMS					
Seismic requirements	Review of the designated seismic systems and seismic force resistance systems	Y	IBC 1704.3.2, 1705.12	3	
SMOKE CONTROL					
Special Inspection of smoke control systems	Leakage testing and recording of device location. pressure difference testing, flow measurement and detection, and control verification	N	IBC 1705.18	N/A	

INSPECTION AGENTS	FIRM	ADDRESS	TELEPHONE
1. Special Inspector:	Stroud, Pence & Associates	5032 Rouse Drive, Suite 200, Virginia Beach, VA 23462	757-671-8626
2. Materials and Testing Laboratory:	Froehling & Robertson, Inc.	3015 Dumbarton Road, Richmond, VA 23228	804-264-2701
3. Mechanical and Electrical Seismic Inspector:	Thompson Consulting Engineers	22 Enterprise Parkway, Suite 200, Hampton, VA 23666	757-599-4415
4. (Additional Agents?)			

Note: * The Qualifications of the Special Inspector and Testing Laboratories are subject to the Approval of the Building Official.
** Inspection of quality control procedures required only if fabricator is not regularly inspected by an independent inspection agency.

CSI Form 1.5C

SUBSTITUTION REQUEST
(During the Bid Period)

Project: Hopewell Fire Station

Substitution Request Number:

From: Johns Manville

To: RRMM Architects, PC.

Date: 09/08/2016

ATTN: Katie O'Neal

A/E Project Number: 13232.00

Re: As Equal Request

Contract For: Insulation

Specification Title: Foamed-In-Place Insulation

Description: Closed-Cell Spray Polyurethane Foam

Section: 072119 Page: 2

Article/Paragraph: 2.1

Proposed Substitution: JM Corbond III Closed-Cell Spray Polyurethane Foam Insulation

Manufacturer: Johns Manville Address: 717 17th Street, Denver, CO 80202 Phone: 303-978-2434

Trade Name: Closed-cell spray foam Model No.: Corbond III

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.

Submitted by: Jeffrey Job

Signed by: Jeffrey Job

Firm: Johns Manville

Address: 717 17th Street

Denver, CO 80202

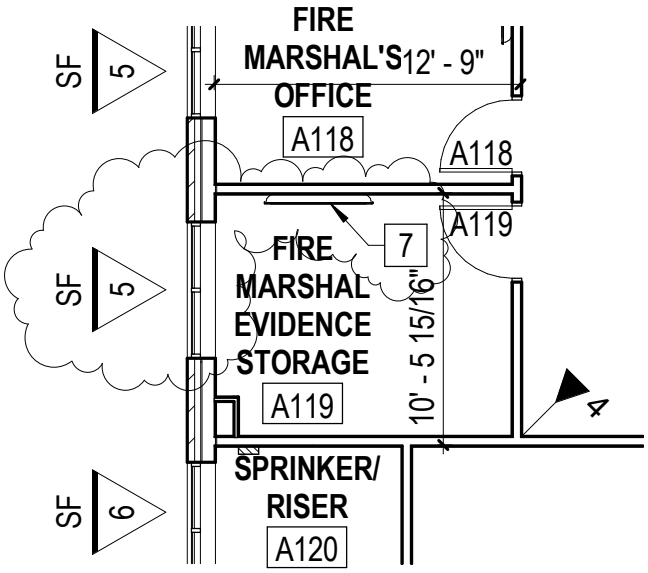
Telephone: 303-987-2434

A/E's REVIEW AND ACTION

☒ Substitution approved - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
☐ Substitution approved as noted - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
☐ Substitution rejected - Use specified materials.
☐ Substitution Request received too late - Use specified materials.

Signed by: Date:

Supporting Data Attached: ☐ Drawings ☒ Product Data ☐ Samples ☐ Tests ☒ Reports ☒ Product Comparison



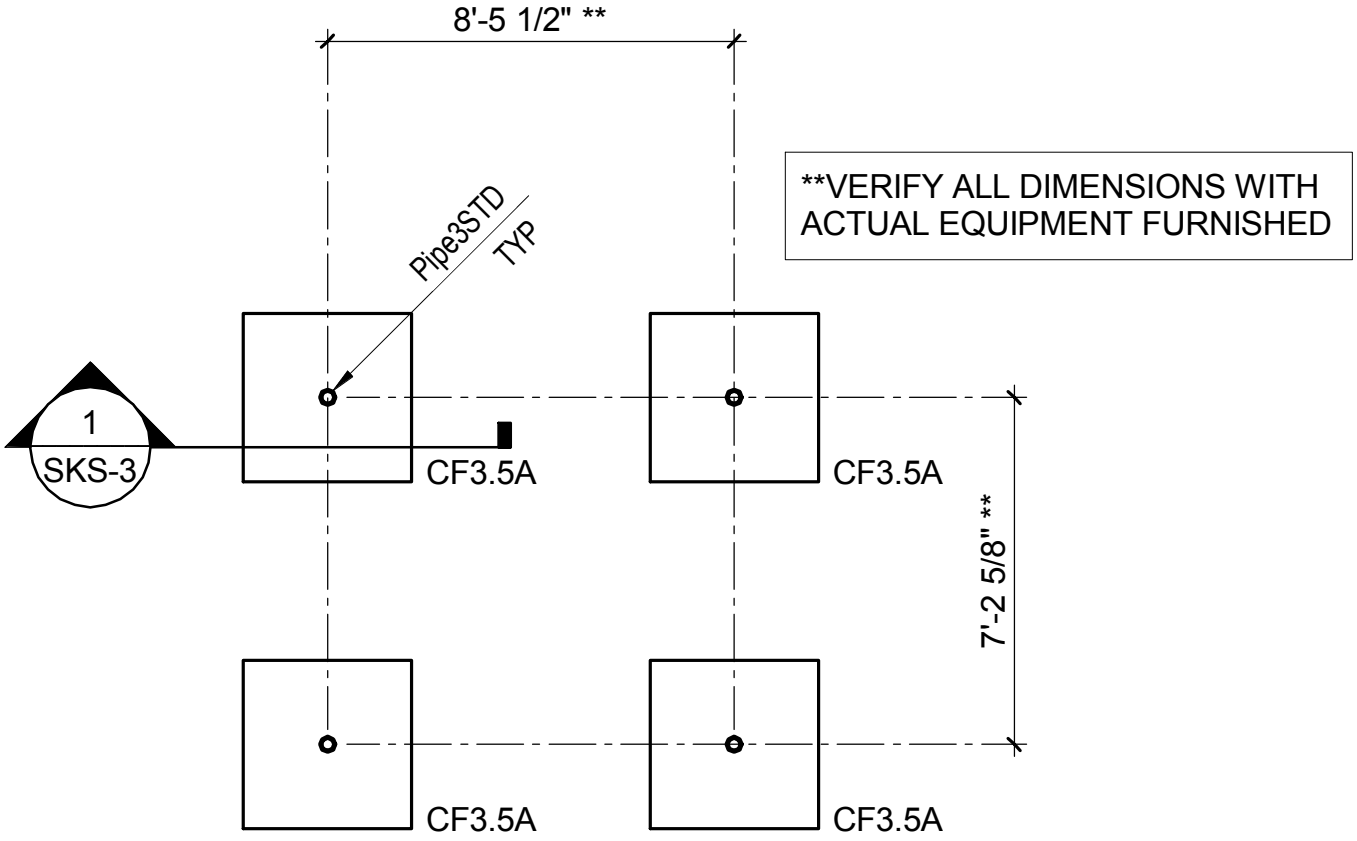
RRMM ARCHITECTS, PC

HOPEWELL FIRE STATION
CITY OF HOPEWELL
ADDRESS UNDETERMINED
HOPEWELL, VA

SKA-2 FIRE MARSHAL EVIDENCE STORAGE A119 ENLARGED

DATE	ORIGINAL DWG NO
09/13/16	A-101
DRAWN BY	CHECKED BY
KAO	KAO

RRMM PROJECT NO	SKETCH NO
13232-00	SKA-2



PART FOUNDATION PLAN AT CLOSED CIRCUIT COOLER

1/4" = 1'-0"

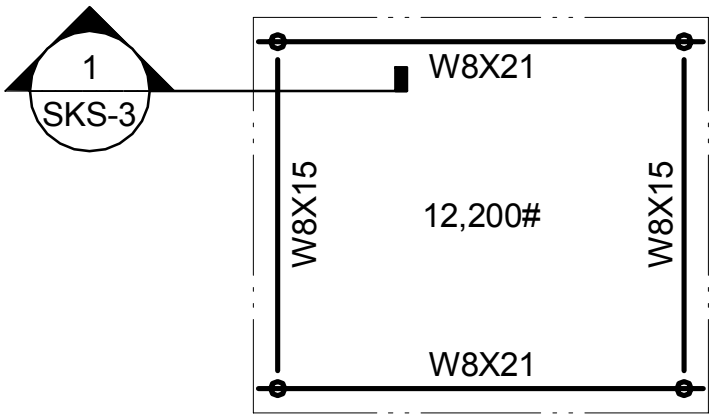
RRMM ARCHITECTS, PC

HOPEWELL FIRE STATION
CITY OF HOPEWELL
ADDRESS UNDETERMINED
HOPEWELL, VA

PART FOUNDATION PLAN AT CLOSED CIRCUIT COOLER

DATE	ORIGINAL DWG NO
09/13/16	S-102
DRAWN BY	CHECKED BY
SBQ	JDT

RRMM PROJECT NO	SKETCH NO
13232-00	SKS-1



PART FOUNDATION PLAN AT CLOSED CIRCUIT COOLER

1/4" = 1'-0"

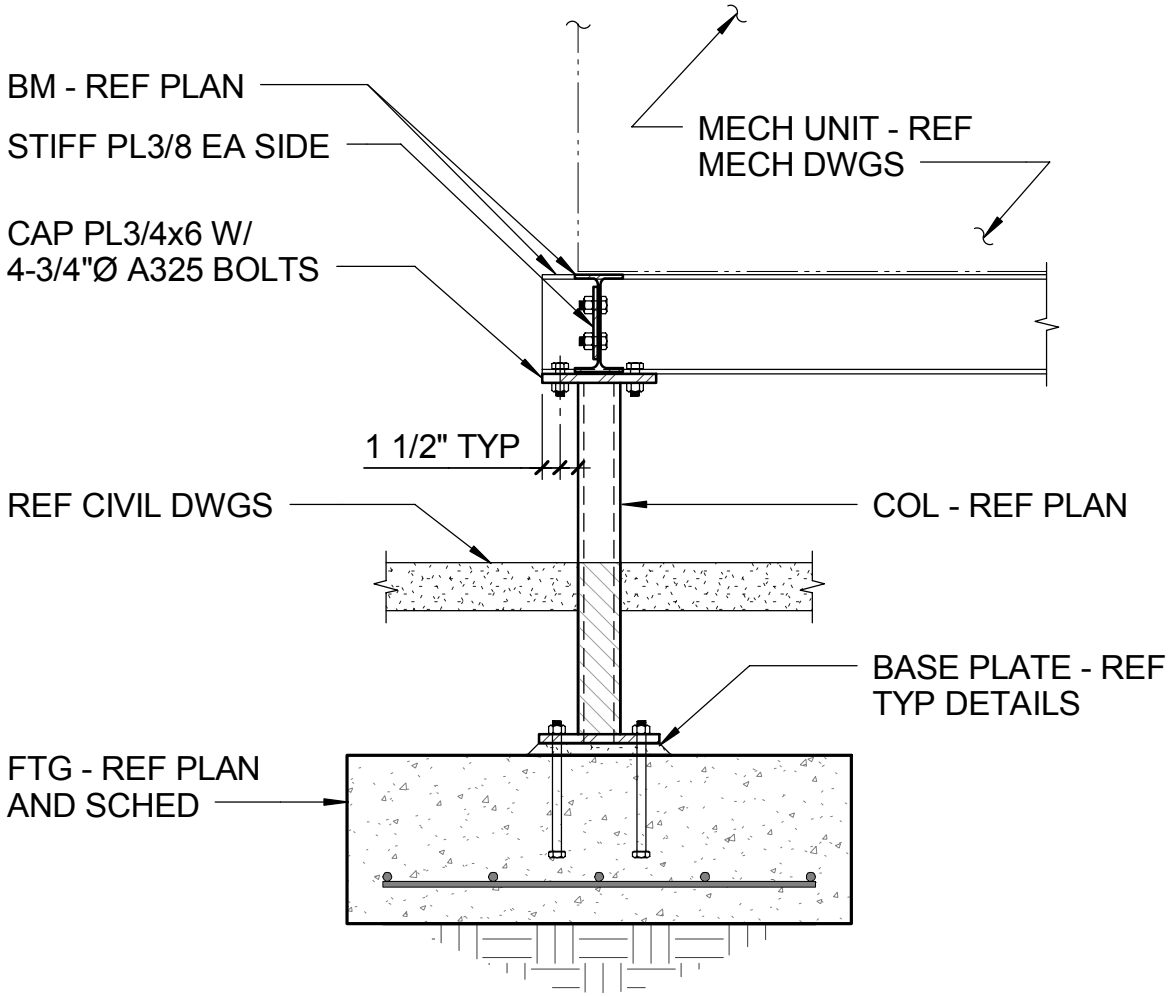
RRMM ARCHITECTS, PC

HOPEWELL FIRE STATION
CITY OF HOPEWELL
ADDRESS UNDETERMINED
HOPEWELL, VA

PART FRAMING PLAN AT CLOSED CIRCUIT COOLER

DATE	ORIGINAL DWG NO
09/13/16	S-102
DRAWN BY	CHECKED BY
SBQ	JDT

RRMM PROJECT NO	SKETCH NO
13232-00	SKS-2



1 / SKS-3 SECTION

3/4" = 1'-0"

RRMM ARCHITECTS, PC

HOPEWELL FIRE STATION
CITY OF HOPEWELL
ADDRESS UNDETERMINED
HOPEWELL, VA

SECTION

DATE	ORIGINAL DWG NO
09/13/16	S-301
DRAWN BY	CHECKED BY
SBQ	JDT

RRMM PROJECT NO	SKETCH NO
13232-00	SKS-3

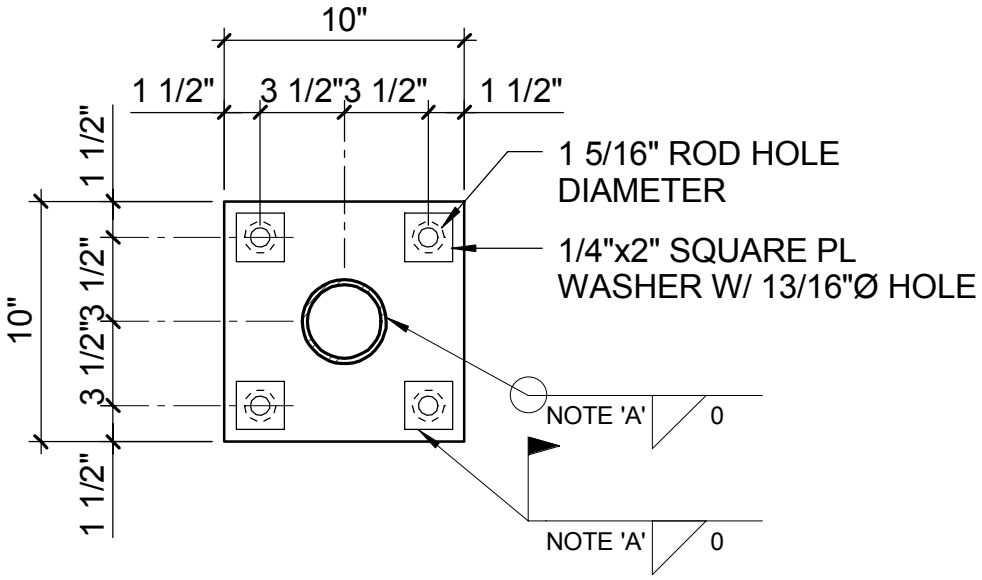
COLUMN FOOTING SCHEDULE

MARK	SIZE			REINFORCING		REMARKS
	LENGTH	WIDTH	DEPTH	BOTTOM	TOP	
CF3	3' - 0"	3' - 0"	1'-0"	3-#4 EW	-	-
CF3.5	3' - 6"	3' - 6"	1'-0"	4-#4 EW	-	-
CF3.5A	3' - 6"	3' - 6"	1'-2"	5-#4 EW	5-#4 EW	
CF4	4' - 0"	4' - 0"	1'-0"	5-#4 EW	-	-
CF4.5	4' - 6"	4' - 6"	1'-1"	4-#5 EW	-	-
CF5	5' - 0"	5' - 0"	1'-2"	5-#5 EW	-	-
CF5.5	5' - 6"	5' - 6"	1'-4"	6-#5 EW	-	-
CF6	6' - 0"	6' - 0"	1'-6"	6-#6 EW	-	-
CF6.5	6' - 6"	6' - 6"	1'-6"	6-#6 EW	-	-
CF6A	6' - 0"	6' - 0"	1'-6"	6-#6 EW	6-#6 EW	BRACED FRAME COLUMNS

DATE 09/13/16
DRAWN BY SBQ
ORIGINAL DWG NO S-501
CHECKED BY JDT
RRMM PROJECT NO 13232-00
SKETCH NO SKS-4

HOPEWELL FIRE STATION
CITY OF HOPEWELL
ADDRESS UNDETERMINED
HOPEWELL, VA
COLUMN FOOTING SCHEDULE

RRMM ARCHITECTS, PC



AT PIPE 3

PL3/4x10x10

BASE PLATE AND ANCHOR ROD DETAILS

1 1/2" = 1'-0"

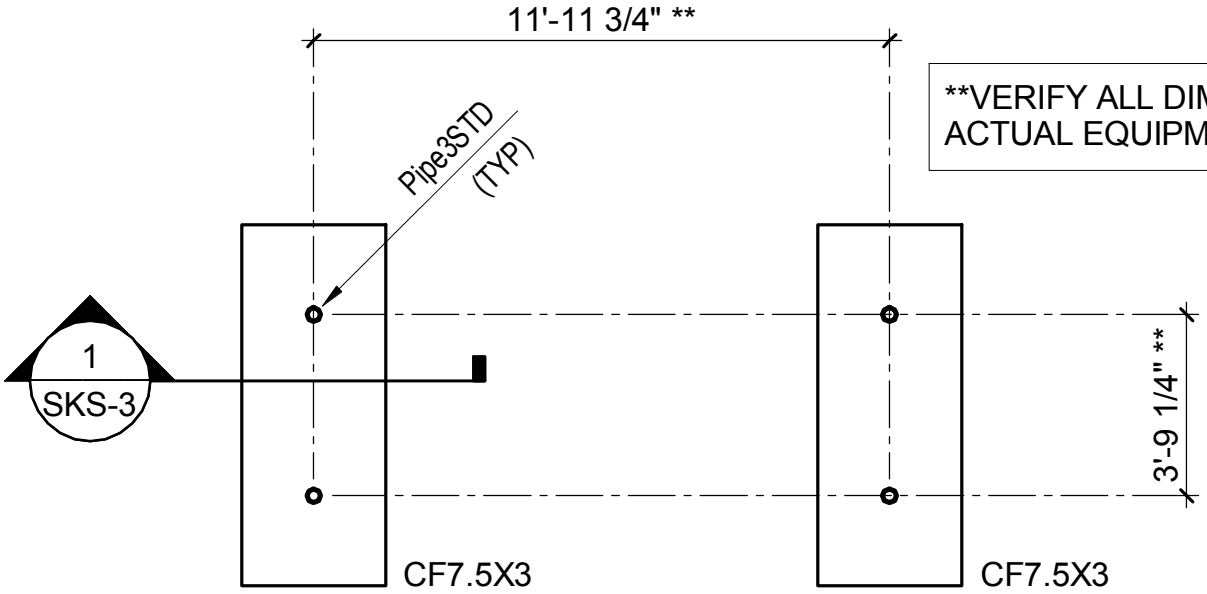
RRMM ARCHITECTS, PC

HOPEWELL FIRE STATION
CITY OF HOPEWELL
ADDRESS UNDETERMINED
HOPEWELL, VA

BASE PLATE AND ANCHOR ROD DETAILS

DATE	ORIGINAL DWG NO
09/13/16	S-501
DRAWN BY	CHECKED BY
SBQ	JDT

RRMM PROJECT NO	SKETCH NO
13232-00	SKS-5



**VERIFY ALL DIMENSIONS WITH ACTUAL EQUIPMENT FURNISHED

PART FOUNDATION PLAN AT CLOSED CIRCUIT COOLER

1/4" = 1'-0"

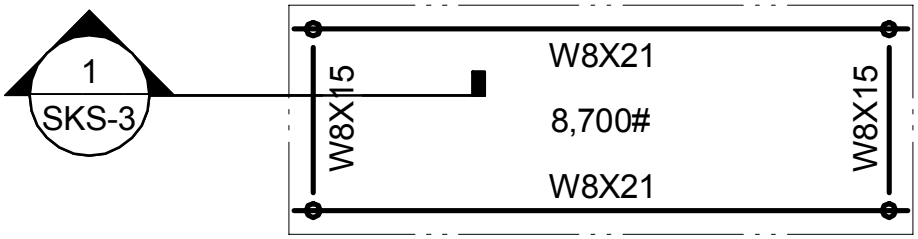
RRMM ARCHITECTS, PC

HOPEWELL POLICE STATION
CITY OF HOPEWELL
Enter address here

PART FOUNDATION PLAN AT CLOSED CIRCUIT COOLER

DATE	ORIGINAL DWG NO
09/13/16	S-101
DRAWN BY	CHECKED BY
SBQ	JDT

RRMM PROJECT NO	SKETCH NO
13232-00	SKS-1



PART FRAMING PLAN AT CLOSED CIRCUIT COOLER

1/4" = 1'-0"

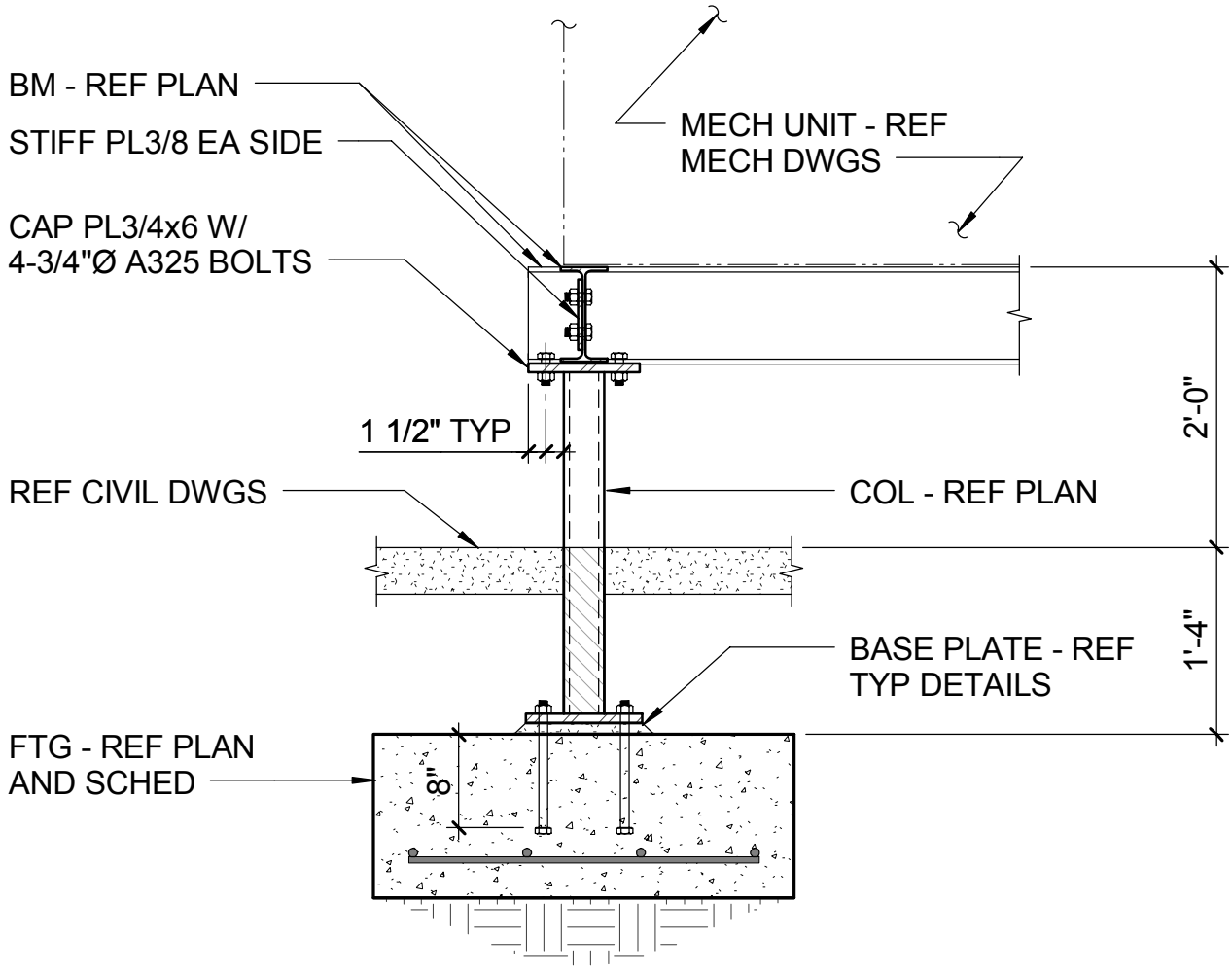
RRMM ARCHITECTS, PC

HOPEWELL POLICE STATION
CITY OF HOPEWELL
Enter address here

PART FRAMING PLAN AT CLOSED CIRCUIT COOLER

DATE	ORIGINAL DWG NO
09/13/16	S-102
DRAWN BY	CHECKED BY
SBQ	JDT

RRMM PROJECT NO	SKETCH NO
13232-00	SKS-2



1 SECTION

SKS-3

3/4" = 1'-0"

RRMM ARCHITECTS, PC

HOPEWELL POLICE STATION
CITY OF HOPEWELL
Enter address here

SECTION

DATE	ORIGINAL DWG NO
09/13/16	S-102
DRAWN BY	CHECKED BY
SBQ	JDT

RRMM PROJECT NO	SKETCH NO
13232-00	SKS-3

COLUMN FOOTING SCHEDULE

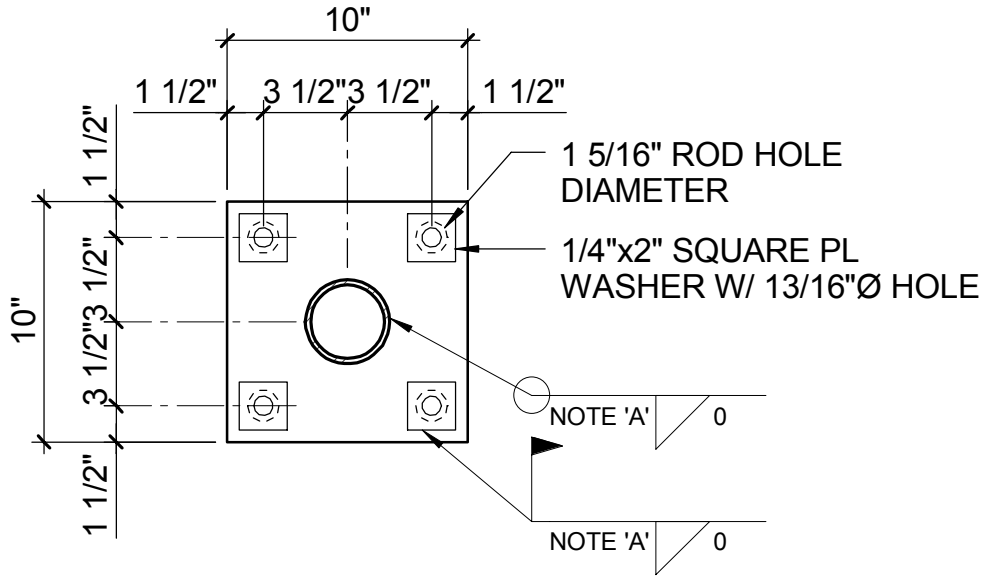
MARK	SIZE			REINFORCING		REMARKS
	LENGTH	WIDTH	DEPTH	BOTTOM	TOP	
CF3	3' - 0"	3' - 0"	1'-0"	3-#4 EW	-	-
CF3.5	3' - 6"	3' - 6"	1'-0"	3-#5 EW	-	-
CF4	4' - 0"	4' - 0"	1'-0"	4-#5 EW	-	-
CF4.5	4' - 6"	4' - 6"	1'-0"	4-#5 EW	-	-
CF5	5' - 0"	5' - 0"	1'-6"	5-#6 EW	5-#6 EW	-
CF5.5	5' - 6"	5' - 6"	1'-2"	6-#5 EW	-	-
CF5.5A	5' - 6"	5' - 6"	1'-6"	6-#6 EW	6-#6 EW	
CF6.5	6' - 6"	6' - 6"	1'-6"	7-#6 EW	7-#6 EW	-
CF7.5X3	7' - 6"	3' - 0"	1'-2"	6-#5 SHORT, 4-#5 LONG	6-#5 SHORT, 4-#5 LONG	

DATE	09/13/16
DRAWN BY	SBQ
ORIGINAL DWG NO	S-101
CHECKED BY	JDT
RRMM PROJECT NO	13232-00
SKETCH NO	SKS-4

HOPEWELL POLICE STATION
CITY OF HOPEWELL
Enter address here

COLUMN FOOTING SCHEDULE

RRMM ARCHITECTS, pc



AT PIPE 3

PL3/4x10x10

BASE PLATE AND ANCHOR ROD DETAILS

NTS

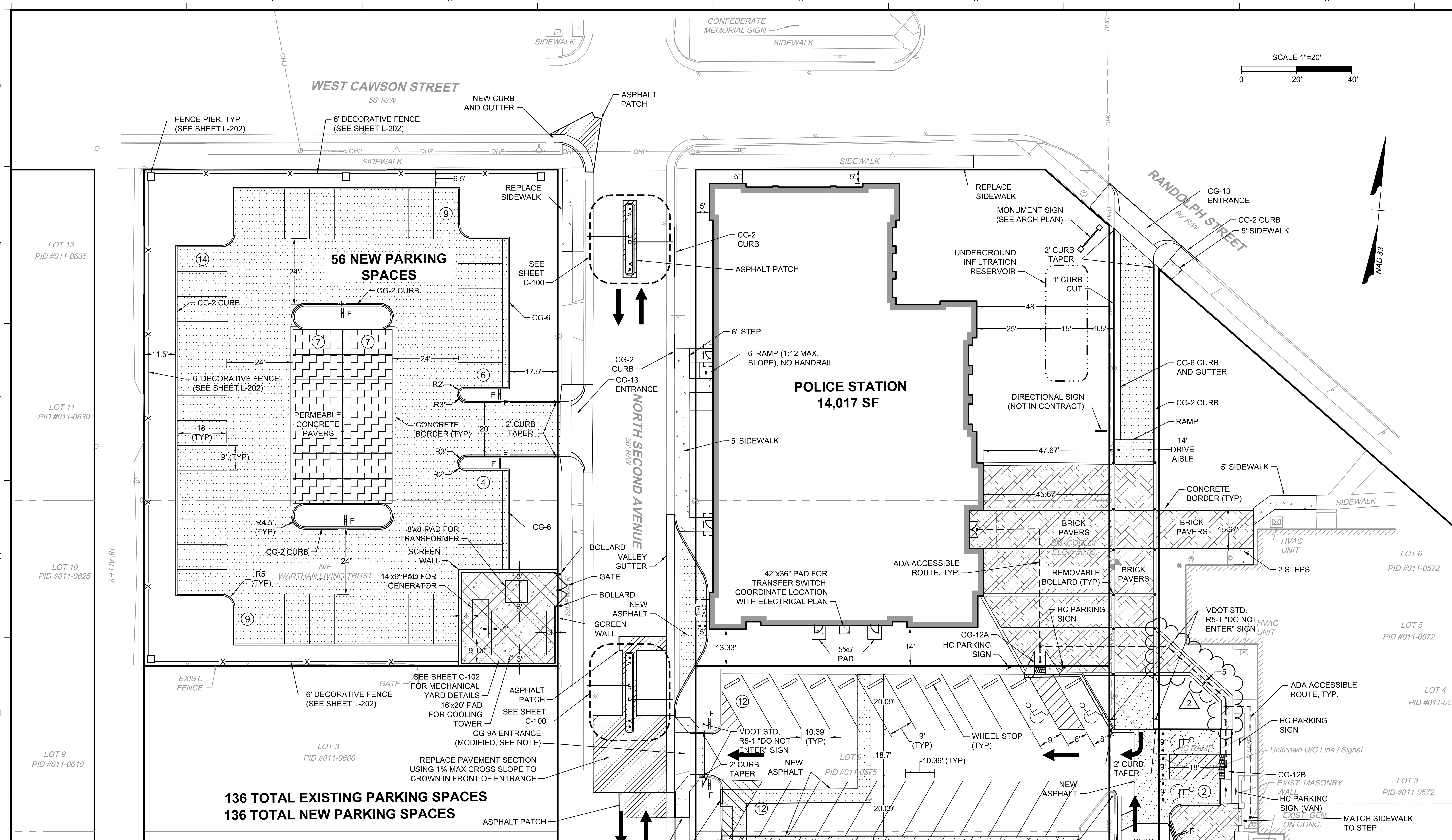
RRMM ARCHITECTS, PC

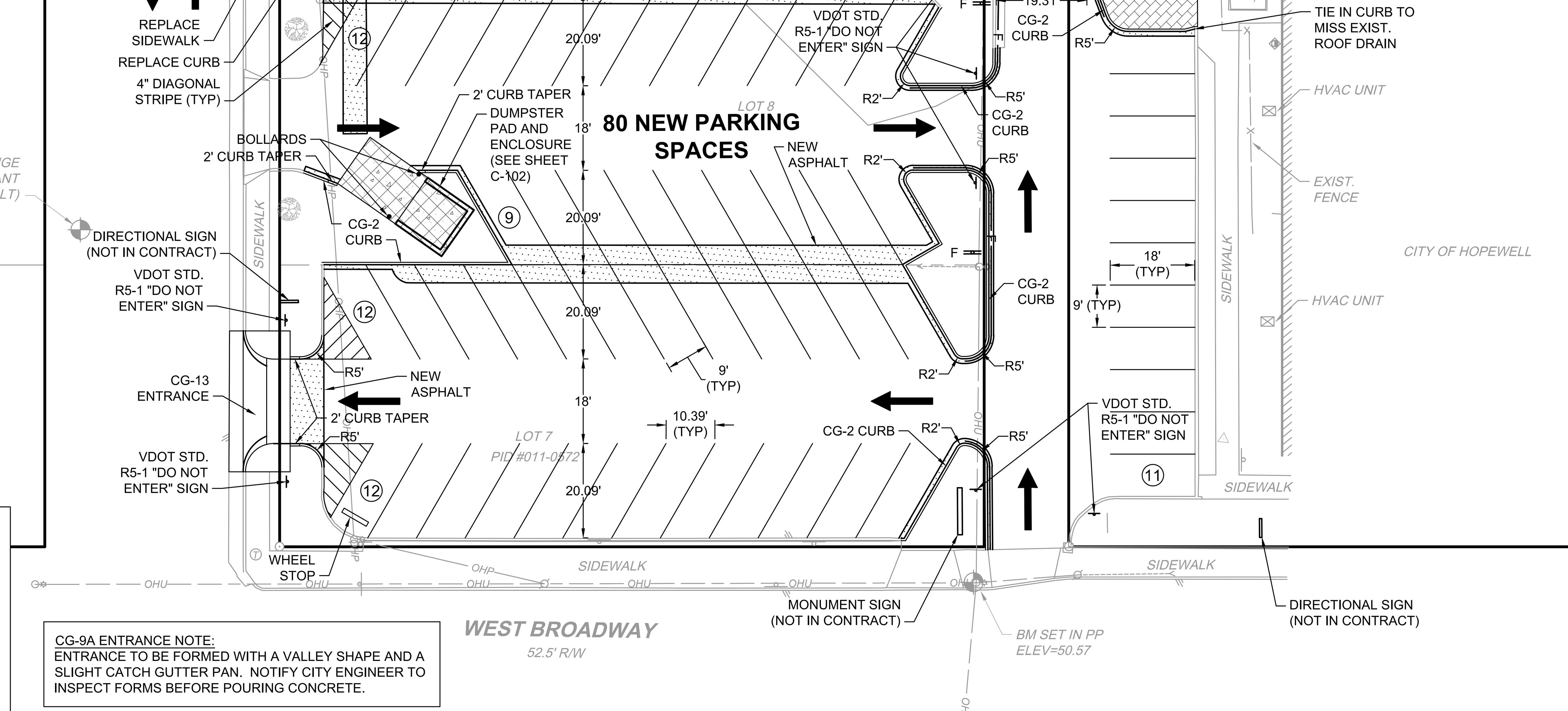
HOPEWELL POLICE STATION
CITY OF HOPEWELL
Enter address here

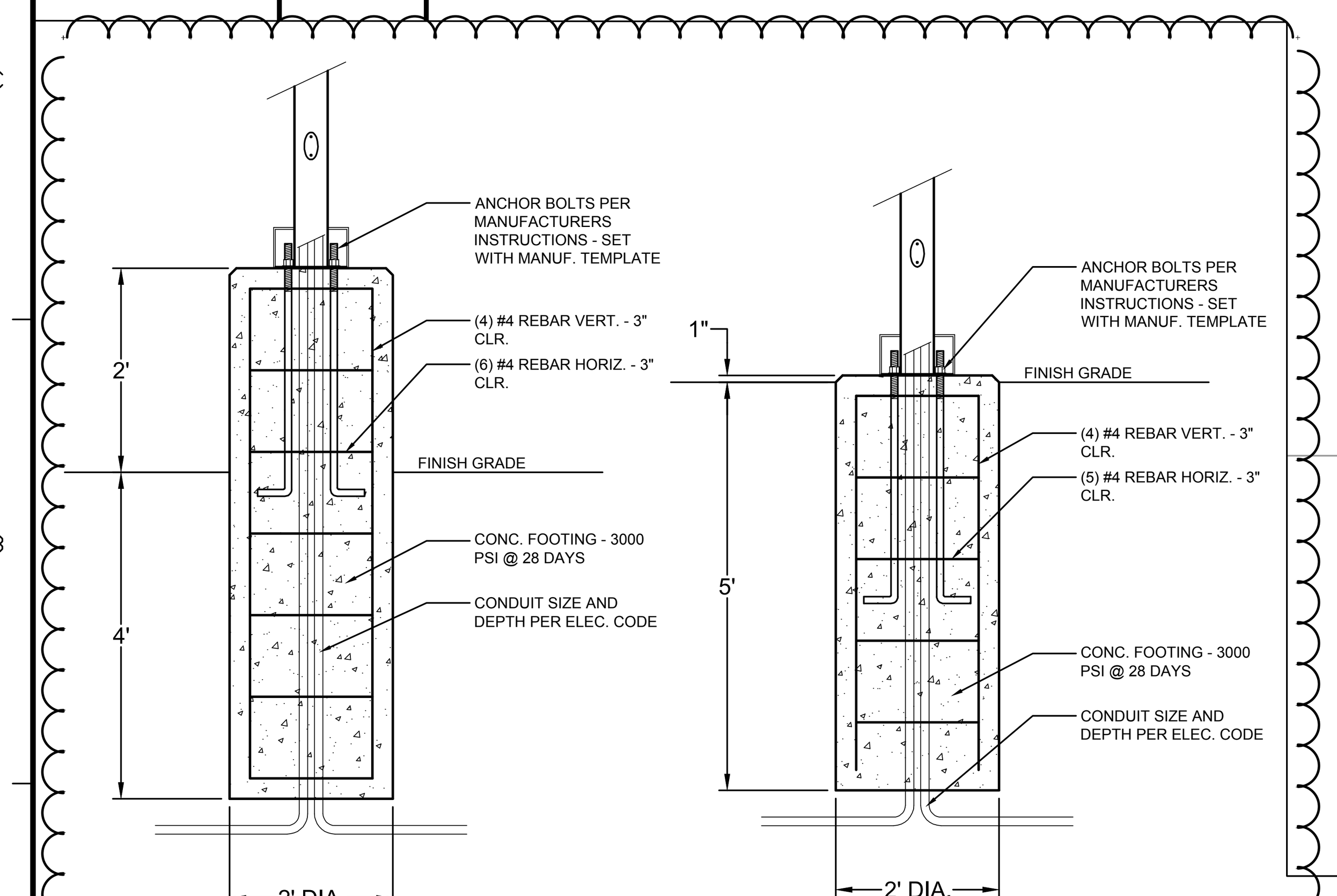
BASE PLATE AND ANCHOR ROD DETAILS

DATE	ORIGINAL DWG NO
09/13/16	S-501
DRAWN BY	CHECKED BY
SBQ	JDT

RRMM PROJECT NO	SKETCH NO
13232-00	SKS-5







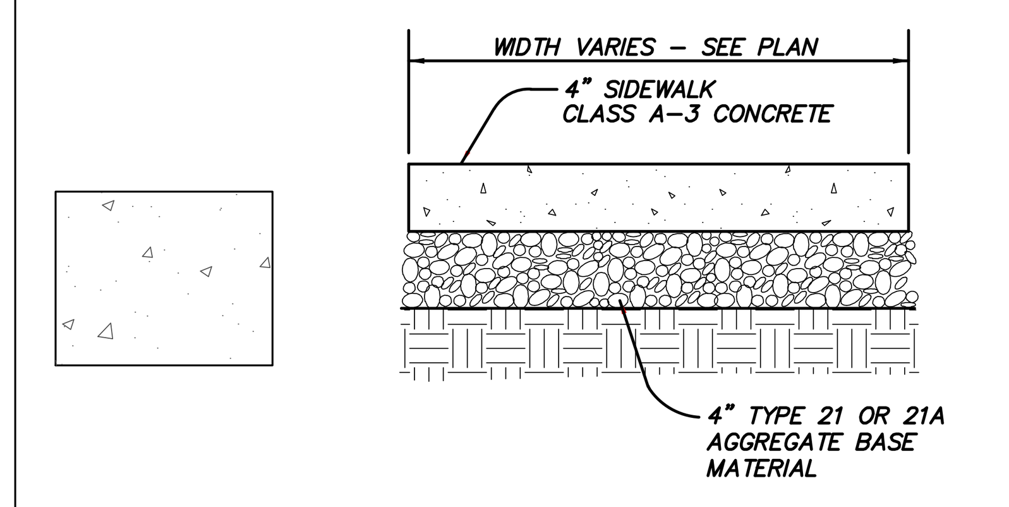
LIGHT POLE BASE DETAILS
N.T.S

FOR SITE LIGHTING REQUIREMENTS REFER TO THIS SHEET AND L300-L303

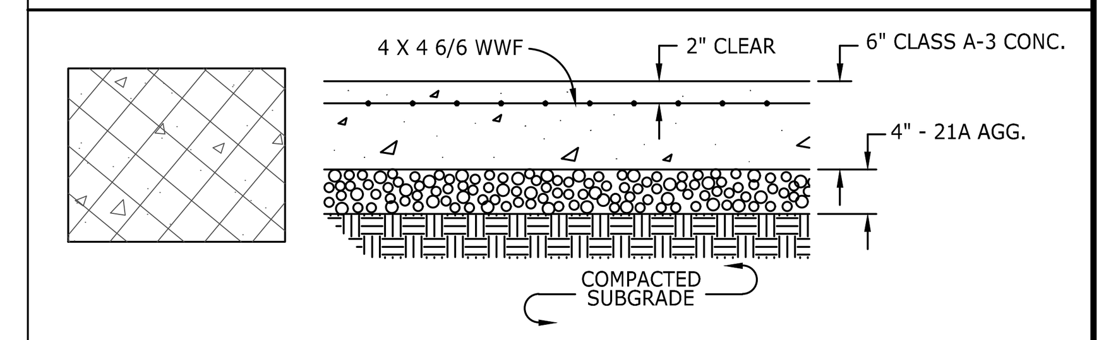
STRIPING AND SIGNAGE LEGEND
- F — FIRE LANE CURB MARKING
- F - DOUBLE SIDED "NO PARKING FIRE LANE" SIGN, SEE SHEET C-101

CG-9A ENTRANCE NOTE:
ENTRANCE TO BE FORMED WITH A VALLEY SHAPE AND A SLIGHT CATCH GUTTER PAN. NOTIFY CITY ENGINEER TO INSPECT FORMS BEFORE POURING CONCRETE.

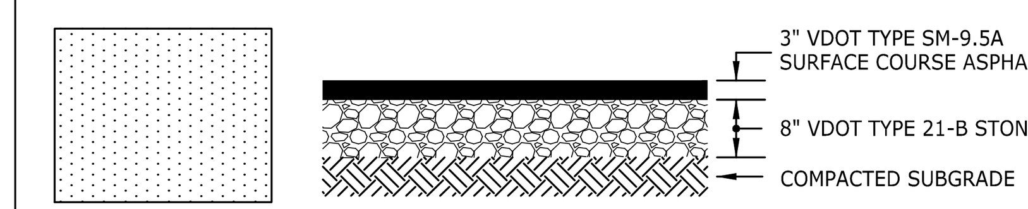
HATCH LEGEND



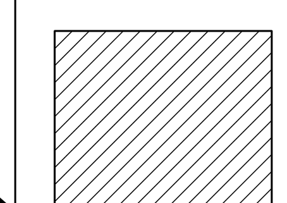
SIDEWALK DETAIL
N.T.S.



DUMPSTER AND EQUIPMENT PAD DETAIL
N.T.S.

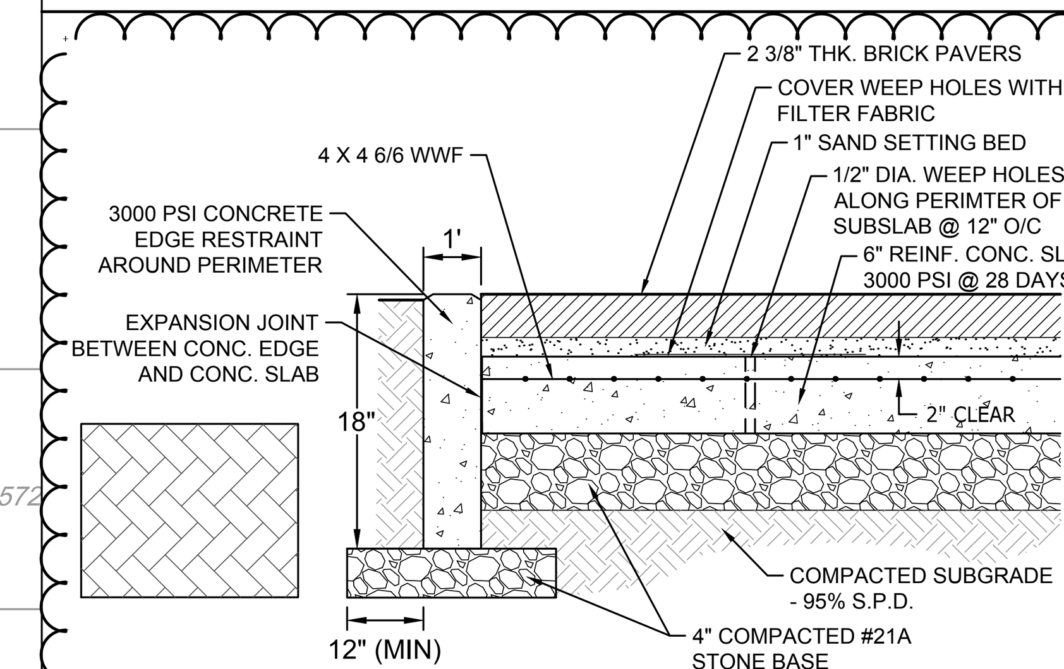


NEW PAVEMENT DETAIL
N.T.S.

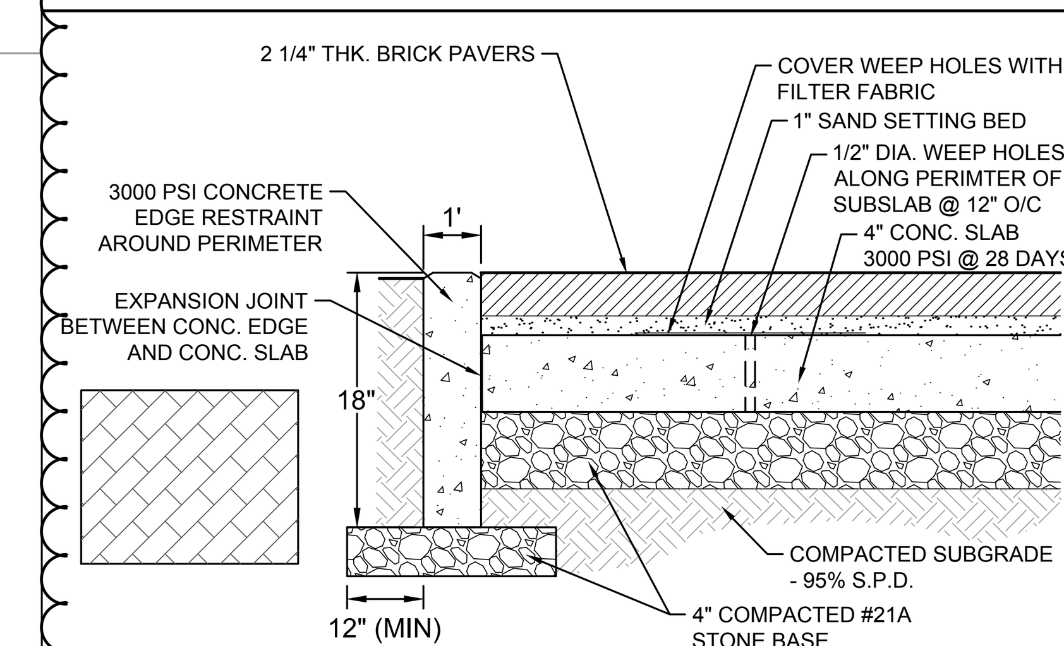


MATCH EXISTING PAVEMENT SECTION OR CITY STANDARD (SHEET C-000), WHICHEVER IS GREATER.

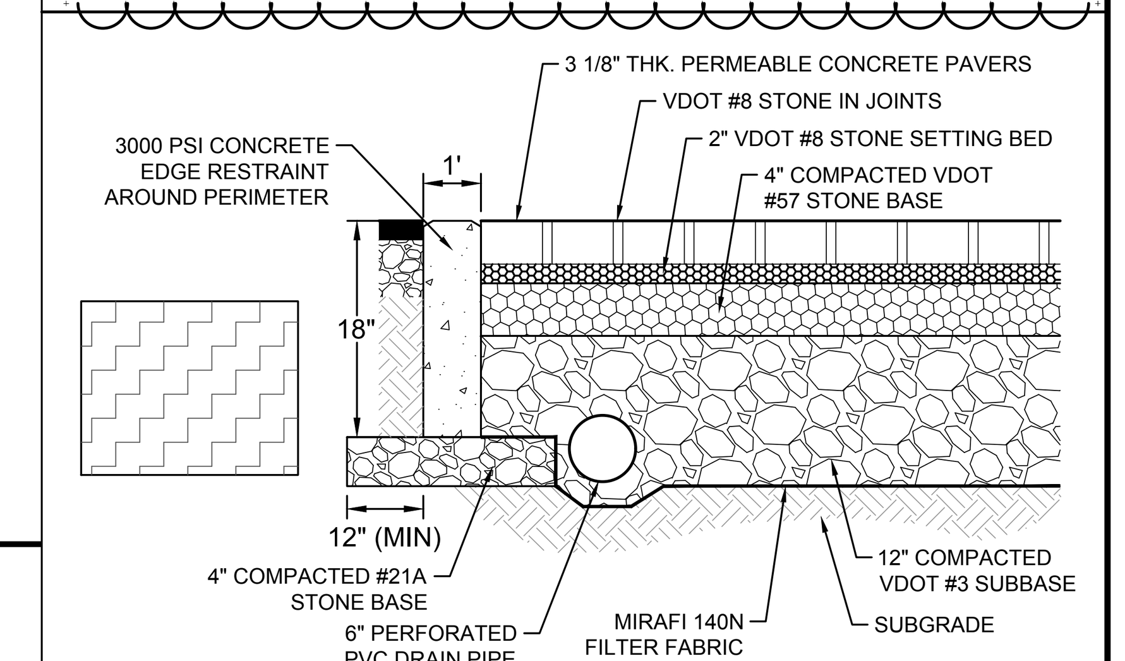
ASPHALT PATCH
N.T.S.



BRICK PAVERS DETAIL - DRIVE AISLE
N.T.S.



BRICK PAVERS DETAIL - PLAZA
N.T.S.



NOTE: CONCRETE PAVERS SHALL BE AQUABRIC T4L AS MANUFACTURED BY EAGLE BAY OR EQUAL. IF AN ALTERNATE PRODUCT IS USED ADJUST SUBGRADE AND BEDDING PER MANUFACTURER'S RECOMMENDATIONS.

PERMEABLE CONCRETE PAVERS DETAIL
N.T.S.

COMMONWEALTH OF VIRGINIA — TIMOTHY STEPHEN SELDON — Lic. No. 047999 — 9/12/2016 — PROFESSIONAL ENGINEER

mark	date	by	description
2	9/12/2016	T. SELDON	BID ADDENDUM #2
1	9/7/2016	T. SELDON	BID ADDENDUM #1

revisions

DATE	8/12/2016
PROJECT	36466
DESIGNED	B. MCMILLAN
DRAWN	B. MCMILLAN
CHECKED	T. SELDON

RRMM ARCHITECTS, PC
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www.timmons.com
Site Development | Residential | Infrastructure | Technology
36466

PROJECT: HOPEWELL POLICE STATION
CITY OF HOPEWELL
HOPEWELL, VA

DRAWING: LAYOUT PLAN

SHEET: C-300

FILE NAME: R:\106\36466-Hopewell_Police_Dept\DWG\Sheet\CD\36466-C2-SITE.dwg LAYOUT NAME: C-300-LAYO PLOTTED: Monday, September 12, 2016 - 1:46pm

SECTION 084123 – FIRE-RESISTANT ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Fire-rated exterior storefront assemblies.

B. Related Requirements:

1. Section 087100 "Door Hardware" for field installed hardware and electrified door locks.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

B. Shop Drawings: For fire-rated aluminum-framed entrance and storefront assemblies. Include plans, elevations, sections, full-size details, and attachments to other work.

1. Include details of provisions for assembly expansion and contraction and for draining moisture occurring within the assembly to the exterior.
2. Include full-size isometric details of each vertical-to-horizontal intersection of aluminum-framed entrances and storefronts, showing the following:

a. Joinery, including concealed welds.
b. Anchorage.
c. Glazing.
d. Flashing and drainage.

3. Show connection to and continuity with adjacent thermal, weather, air, and vapor barriers.

C. Samples for Initial Selection: For units with factory-applied color finishes.

D. Samples for Verification: For each type of exposed finish required, in manufacturer's standard sizes.

E. Fabrication Sample: Of each vertical-to-horizontal intersection of assemblies, made from 12-inch lengths of full-size components and showing details of the following:

1. Joinery, including concealed welds.
2. Anchorage.
3. Glazing.
4. Flashing and drainage.

F. Delegated-Design Submittal: For fire-rated aluminum-framed entrance and storefront assemblies indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer and manufacturers of fire-rated aluminum-framed entrances and storefronts.

B. Energy Performance Certificates: For aluminum-framed entrances and storefronts, accessories, and components, from manufacturer.

1. Basis for Certification: NFRC-certified energy performance values for each aluminum-framed entrance and storefront.

C. Product Test Reports: For fire-rated aluminum-framed entrances and storefront assemblies, for tests performed by a qualified testing agency.

D. Source quality-control reports.

E. Sample Warranties: For special warranties.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For fire-rated aluminum-framed entrance and storefront assemblies to include in maintenance manuals.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.

B. Product Options: Information on Drawings and in Specifications establishes requirements for aesthetic effects and performance characteristics of assemblies. Aesthetic effects are indicated by dimensions, arrangements, alignment, and profiles of components and assemblies as they relate to sightlines, to one another, and to adjoining construction.

1. Do not change intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If changes are proposed, submit comprehensive explanatory data to Architect for review.

C. Fire-Rated Aluminum-Framed Entrance and Storefront Assemblies: Assemblies complying with NFPA 80 that are classified and labeled by UL, for fire ratings indicated, based on testing according to NFPA 257 and UL 9.

D. Listings and Labels - Fire-Rated Aluminum-Framed Entrance and Storefront Assemblies: Under current follow-up service by Underwriters Laboratories® maintaining a current listing or certification. Label assemblies in accordance with limits of manufacturer's listing.

1.7 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of fire-rated aluminum-framed entrance and storefront assemblies that do not comply with requirements or that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Structural failures including, but not limited to, excessive deflection.
b. Noise or vibration created by wind and thermal and structural movements.
c. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
d. Water penetration through fixed glazing and framing areas.
e. Failure of operating components.

2. Warranty Period: Ten (10) years from date of Substantial Completion.

B. Special Finish Warranty: Standard form in which manufacturer agrees to repair finishes or replace aluminum that shows evidence of deterioration of factory-applied finishes within specified warranty period.

1. Warranty Period: Twenty (20) years from date of Substantial Completion.

C. Manufacturer's Special Warranty for Insulating Fire-Protection-Rated Glass: Manufacturer agrees to replace insulating fire-protection-rated glass units that deteriorate within specified warranty period. Deterioration of insulating glass is defined as failure of hermetic seal under normal use that is not attributed to glass breakage or to maintaining and cleaning insulating glass contrary to manufacturer's written instructions. Evidence of failure is the obstruction of vision by dust, moisture, or film on interior surfaces of glass.

1. Warranty Period: Ten (10) years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Delegated Design: Engage a qualified professional engineer, as defined in Section 014000 "Quality Requirements," to design aluminum-framed entrances and storefronts.

B. Fire-Rated Aluminum-Framed Entrance and Storefront Assemblies: 45-minute fire-protection-rated assembly listed and labeled by a testing agency acceptable to authorities having jurisdiction, for fire-protection ratings indicated, based on positive-pressure testing according to NFPA 257 or UL 9, including the hose-stream test, and shall comply with NFPA 80.

C. General Performance: Comply with performance requirements specified, as determined by testing of aluminum-framed entrances and storefronts representing those indicated for this Project without failure due to defective manufacture, fabrication, installation, or other defects in construction.

1. Aluminum-framed entrances and storefronts shall withstand movements of supporting structure including, but not limited to, story drift, twist, column shortening, long-term creep, and deflection from uniformly distributed and concentrated live loads.
2. Failure also includes the following:

    a. Thermal stresses transferring to building structure.
    b. Glass breakage.
    c. Noise or vibration created by wind and thermal and structural movements.
    d. Loosening or weakening of fasteners, attachments, and other components.
    e. Failure of operating units.

D. Structural Loads:

1. Wind Loads: As indicated on Drawings.

E. Deflection of Framing Members: At design wind pressure, as follows:

1. Deflection Normal to Wall Plane: Limited to edge of glass in a direction perpendicular to glass plane not exceeding 1/175 of the glass edge length for each individual glazing lite or an amount that restricts edge deflection of individual glazing lites to 3/4 inch, whichever is less.
2. Deflection Parallel to Glazing Plane: Limited to 1/360 of clear span or 1/8 inch, whichever is smaller.

F. Structural: Test according to ASTM E 330 as follows:

1. When tested at positive and negative wind-load design pressures, assemblies do not evidence deflection exceeding specified limits.

2. When tested at 150 percent of positive and negative wind-load design pressures, assemblies, including anchorage, do not evidence material failures, structural distress, or permanent deformation of main framing members exceeding 0.2 percent of span.
3. Test Durations: As required by design wind velocity, but not less than 10 seconds.

G. Air Infiltration: Test according to ASTM E 283 for infiltration as follows:

1. Fixed Framing and Glass Area:

a. Maximum air leakage of 0.06 cfm/sq. ft.at a static-air-pressure differential of 6.24 lbf/sq. ft.

2. Entrance Doors:

a. Pair of Doors: Maximum air leakage of 1.0 cfm/sq. ft.at a static-air-pressure differential of 1.57 lbf/sq. ft.

H. Water Penetration under Static Pressure: Test according to ASTM E 331 as follows:

1. No evidence of water penetration through fixed glazing and framing areas when tested according to a minimum static-air-pressure differential of 20 percent of positive wind-load design pressure, but not less than 6.24 lbf/sq. ft.

2. Maximum Water Leakage: No uncontrolled water penetrating aluminum-framed systems or water appearing on systems' normally exposed interior surfaces from sources other than condensation. Water leakage does not include water controlled by flashing and gutters that is drained to exterior and water that cannot damage adjacent materials or finishes.

I. Energy Performance: Certify and label energy performance according to NFRC as follows:

1. Thermal Transmittance (U-factor): Fixed glazing and framing areas shall have U-factor of not more than 0.69 Btu/sq. ft. x h x deg Fas determined according to NFRC 100.
2. Solar Heat Gain Coefficient: Fixed glazing and framing areas shall have a solar heat gain coefficient of no greater than 0.45 as determined according to NFRC 200.
3. Condensation Resistance: Fixed glazing and framing areas shall have an NFRC-certified condensation resistance rating of no less than 45 as determined according to NFRC 500.

J. Noise Reduction: Test according to ASTM E 90, with ratings determined by ASTM E 1332, as follows.

1. Outdoor-Indoor Transmission Class: Minimum 26.

K. Thermal Movements: Allow for thermal movements resulting from ambient and surface temperature changes:

1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

2. Thermal Cycling: No buckling; stress on glass; sealant failure; excess stress on framing, anchors, and fasteners; or reduction of performance when tested according to AAMA 501.5.

    a. High Exterior Ambient-Air Temperature: That which produces an exterior metal-surface temperature of 180 deg F
    b. Low Exterior Ambient-Air Temperature: 0 deg F.
    c. Interior Ambient-Air Temperature: 75 deg F

2.2 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Technical Glass Products.
2. SAFTI FIRST Fire Rated Glazing Solutions.
3. Aluflam North America.

B. Source Limitations: Obtain all components of fire-rated aluminum-framed entrance and storefront assemblies, including framing, glazing, and accessories, from single source from single manufacturer.

2.3 FRAMING

A. Framing Members: Manufacturer's extruded- or formed-aluminum framing members of thickness required and reinforced as required to support imposed loads.

1. Construction: Thermally broken for exterior locations. Non-thermal for interior locations.
2. Glazing System: Retained mechanically with gaskets on four sides.
3. Glazing Plane: Front at exterior locations and center at interior location.
4. Finish: Clear anodic finish.
5. Fabrication Method: Field-fabricated stick system.

B. Backer Plates: Manufacturer's standard, continuous backer plates for framing members, if not integral, where framing abuts adjacent construction.

C. Brackets and Reinforcements: Manufacturer's standard high-strength aluminum with non-staining, nonferrous shims for aligning system components.

D. Materials:

1. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated.

    a. Sheet and Plate: ASTM B 209.
    b. Extruded Bars, Rods, Profiles, and Tubes: ASTM B 221.
    c. Extruded Structural Pipe and Tubes: ASTM B 429/B 429M.

d. Structural Profiles: ASTM B 308/B 308M.

2. Steel Reinforcement: Manufacturer's standard zinc-rich, corrosion-resistant primer complying with SSPC-PS Guide No. 12.00; applied immediately after surface preparation and pretreatment. Select surface preparation methods according to recommendations in SSPC-SP COM, and prepare surfaces according to applicable SSPC standard.

a. Structural Shapes, Plates, and Bars: ASTM A 36/A 36M.
b. Cold-Rolled Sheet and Strip: ASTM A 1008/A 1008M.
c. Hot-Rolled Sheet and Strip: ASTM A 1011/A 1011M.

2.4 ENTRANCE DOOR SYSTEMS

A. Entrance Doors: Manufacturer's standard glazed entrance doors for manual-swing operation.

1. Door Construction: 1-3/4-inch overall thickness, with minimum 0.125-inch-thick, extruded-aluminum tubular rail and stile members. Mechanically fasten corners with reinforcing brackets that are deeply penetrated and fillet welded or that incorporate concealed tie rods.

a. Thermal Construction: High-performance plastic connectors separate aluminum members exposed to the exterior from members exposed to the interior.
b. Design to receive 5/8-inch thick insulated glazing.

2. Door Design: As indicated.

a. Accessible Doors: Smooth surfaced for width of door in area within 10 inches above floor or ground plane.

3. Glazing Stops and Gaskets: Beveled, snap-on, extruded-aluminum stops and preformed gaskets.

a. Provide non-removable glazing stops on outside of door.

2.5 ENTRANCE DOOR HARDWARE

A. Entrance Door Hardware: Hardware not specified in this Section is specified in Section 087100 "Door Hardware."

B. General: Provide entrance door hardware for each entrance door to comply with requirements in this Section.

C. Weather Stripping: Manufacturer's standard replaceable components.

1. Compression Type: Made of ASTM D 2000, molded neoprene, or ASTM D 2287, molded PVC.

2. Sliding Type: AAMA 701/702, made of wool, polypropylene, or nylon woven pile with nylon-fabric or aluminum-strip backing.

D. Weather Sweeps: Manufacturer's standard exterior-door bottom sweep with concealed fasteners on mounting strip.

2.6 INSULATING FIRE-PROTECTION-RATED GLASS

A. Fire-Protection-Rated, Low-E-Coated, Tinted Insulating-Glass Units: Factory-assembled units consisting of sealed lites of glass separated by a dehydrated interspace, qualified according to ASTM E 2190.

1. Sealing System: Dual seal, with manufacturer's standard primary and secondary sealants.
2. Spacer: Manufacturer's standard spacer material and construction.

B. Fire-Protection-Rated Glazing: Listed and labeled by a testing agency acceptable to authorities having jurisdiction, for fire-protection ratings indicated, based on positive-pressure testing according to NFPA 257 or UL 9, including the hose-stream test, and shall comply with NFPA 80.

1. Fire-protection-rated glazing required to have a fire-protection rating of 20 minutes shall be exempt from the hose-stream test.

C. Fire-Protection-Rated Glazing Labeling: Permanently mark fire-protection-rated glazing with certification label of a testing agency acceptable to authorities having jurisdiction. Label shall indicate manufacturer's name; test standard; whether glazing is permitted to be used in doors or openings; if permitted in openings, whether or not glazing has passed the hose-stream test; whether or not glazing meets 450 deg F (250 deg C) temperature-rise limitation; and the fire-resistance rating in minutes.

D. Glazing Accessories: Provide glazing gaskets, glazing sealants, glazing tapes, setting blocks, spacers, edge blocks, and other glazing accessories that are compatible with glazing products and each other, and are approved by testing agencies that listed and labeled fire-resistant glazing products with which products are used for applications and fire-protection ratings indicated.

E. Glass Type: Fire-protection-rated, low-E-coated, tinted insulating glass units.

1. Basis-of-Design Product: Technical Glass Products FireLite IGU
2. Overall Unit Thickness: 1 inch for typical applications; 5/8” for insulated exterior doors.
3. Minimum Thickness of Each Glass Lite: 6 mm.
4. Outdoor Lite: Tinted film-faced clear ceramic glass.
5. Tint Color: As selected by Architect from manufacturer's full range.
6. Interspace Content: Air.
7. Indoor Lite: Clear fully tempered float glass.
8. Low-E Coating: Sputtered on third surface.
9. Winter Nighttime U-Factor: .29 maximum.

10. Summer Daytime U-Factor: .27 maximum.
11. Visible Light Transmittance: 35 percent minimum.
12. Solar Heat Gain Coefficient: .24 maximum.

2.7 ACCESSORIES

A. Fasteners and Accessories: Manufacturer's standard corrosion-resistant, non-staining, nonbleeding fasteners and accessories compatible with adjacent materials.

1. Use self-locking devices where fasteners are subject to loosening or turning out from thermal and structural movements, wind loads, or vibration.
2. Reinforce members as required to receive fastener threads.

B. Anchors: Three-way adjustable anchors with minimum adjustment of 1 inch that accommodate fabrication and installation tolerances in material and finish compatible with adjoining materials and recommended by manufacturer.

C. Concealed Flashing: Manufacturer's standard corrosion-resistant, non-staining, nonbleeding flashing compatible with adjacent materials.

D. Joint Sealants: For installation at perimeter of aluminum-framed systems, as specified in Section 079200 "Joint Sealants."

E. Bituminous Paint: Cold-applied asphalt-mastic paint complying with SSPC-Paint 12 requirements except containing no asbestos, formulated for 30-mil thickness per coat.

2.8 FABRICATION

A. Form or extrude aluminum shapes before finishing.

B. Weld in concealed locations to greatest extent possible to minimize distortion or discoloration of finish. Remove weld spatter and welding oxides from exposed surfaces by descaling or grinding.

C. Fabricate components that, when assembled, have the following characteristics:

1. Profiles that are sharp, straight, and free of defects or deformations.
2. Accurately fitted joints with ends coped or mitered.
3. Means to drain water passing joints, condensation within framing members, and moisture migrating within the system to exterior.
4. Physical and thermal isolation of glazing from framing members.
5. Accommodations for thermal and mechanical movements of glazing and framing to maintain required glazing edge clearances.
6. Provisions for field replacement of glazing from interior.
7. Fasteners, anchors, and connection devices that are concealed from view to greatest extent possible.

D. Mechanically Glazed Framing Members: Fabricate for flush glazing without projecting stops.

E. Storefront Framing: Fabricate components for assembly using screw-spline system.

F. Entrance Door Frames: Reinforce as required to support loads imposed by door operation and for installing entrance door hardware.

1. At exterior doors, provide compression weather stripping at fixed stops.
2. At interior doors, provide silencers at stops to prevent metal-to-metal contact. Install three silencers on strike jamb of single-door frames and two silencers on head of frames for pairs of doors.

G. Entrance Doors: Reinforce doors as required for installing entrance door hardware.

1. At pairs of exterior doors, provide sliding-type weather stripping retained in adjustable strip and mortised into door edge.
2. At exterior doors, provide weather sweeps applied to door bottoms.

H. Entrance Door Hardware Installation: Factory install entrance door hardware to the greatest extent possible. Cut, drill, and tap for factory-installed entrance door hardware before applying finishes.

I. After fabrication, clearly mark components to identify their locations in Project according to Shop Drawings.

2.9 ALUMINUM FINISHES

A. Clear Anodic Finish: AAMA 611, AA-M12C22A41, Class I, 0.018 mm or thicker.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. General:

1. Comply with manufacturer's written instructions.
2. Do not install damaged components.
3. Fit joints to produce hairline joints free of burrs and distortion.
4. Rigidly secure non-movement joints.
5. Install anchors with separators and isolators to prevent metal corrosion and electrolytic deterioration and to prevent impeding movement of moving joints.
6. Seal perimeter and other joints watertight unless otherwise indicated.

B. Metal Protection:

1. Where aluminum is in contact with dissimilar metals, protect against galvanic action by painting contact surfaces with materials recommended by manufacturer for this purpose or by installing nonconductive spacers.
2. Where aluminum is in contact with concrete or masonry, protect against corrosion by painting contact surfaces with bituminous paint.

C. Install components to drain water passing joints, condensation occurring within framing members, and moisture migrating within the system to exterior.

D. Set continuous sill members and flashing in full sealant bed as specified in Section 079200 "Joint Sealants" to produce weathertight installation.

E. Install components plumb and true in alignment with established lines and grades.

F. Install operable units level and plumb, securely anchored, and without distortion. Adjust weather-stripping contact and hardware movement to produce proper operation.

G. Install glazing as specified in Section 088000 "Glazing."

H. Entrance Doors: Install doors to produce smooth operation and tight fit at contact points.

1. Exterior Doors: Install to produce weathertight enclosure and tight fit at weather stripping.
2. Field-Installed Entrance Door Hardware: Install surface-mounted entrance door hardware according to entrance door hardware manufacturers' written instructions using concealed fasteners to greatest extent possible.
3. Provide 5/8-inch thick insulated glazing at exterior doors.

I. Install perimeter joint sealants as specified in Section 079200 "Joint Sealants" to produce weathertight installation.

3.3 ERECTION TOLERANCES

A. Erection Tolerances: Install aluminum-framed entrances and storefronts to comply with the following maximum tolerances:

1. Plumb: 1/8 inch in 10 feet; 1/4 inch in 40 feet.
2. Level: 1/8 inch in 20 feet; 1/4 inch in 40 feet.
3. Alignment:

a. Where surfaces abut in line or are separated by reveal or protruding element up to 1/2-inch wide, limit offset from true alignment to 1/16 inch.
b. Where surfaces are separated by reveal or protruding element from 1/2 to 1-inch wide, limit offset from true alignment to 1/8 inch.
c. Where surfaces are separated by reveal or protruding element of 1-inch wide or more, limit offset from true alignment to 1/4 inch.

4. Location: Limit variation from plane to 1/8 inch in 12 feet; 1/2 inch over total length.

3.4 FIELD QUALITY CONTROL

A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.

B. Field Quality-Control Testing: Perform the following test on representative areas of aluminum-framed entrances and storefronts.

1. Water-Spray Test: Before installation of interior finishes has begun, areas designated by Architect shall be tested according to AAMA 501.2 and shall not evidence water penetration.

a. Test Area: A minimum area of 25 feet by one story of glazed aluminum storefronts.

C. Aluminum-framed entrances and storefronts will be considered defective if they do not pass tests and inspections.

D. Prepare test and inspection reports.

3.5 ADJUSTING

A. Adjust operating entrance door hardware to function smoothly as recommended by manufacturer.

1. For entrance doors accessible to people with disabilities, adjust closers to provide a 3-second closer sweep period for doors to move from a 70-degree open position to 3 inches from the latch, measured to the leading door edge.

END OF SECTION 084123

SECTION 062023 - INTERIOR FINISH CARPENTRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:
   1. Interior veneer plywood or MDF.
   2. Field fabricated wood benches.

B. Related Requirements:

   1. Division 06 Section "Rough Carpentry" for furring, blocking, and other carpentry work not exposed to view

1.3 DEFINITIONS

A. MDF: Medium-density fiberboard.

B. MDO: Plywood with a medium-density overlay on the face.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product. Indicate component materials, dimensions, profiles, textures, and colors and include construction and application details.

   1. Include data for wood-preservative treatment from chemical-treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained. Include chemical-treatment manufacturer's written instructions for finishing treated material.
   2. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced before shipment to Project site to levels specified.
   3. Include copies of warranties from chemical-treatment manufacturers for each type of treatment.
   4. Include data for fire-retardant treatment from chemical-treatment manufacturer and certification by treating plant that treated materials comply with requirements.

B. Samples for Initial Selection: For each type of product involving selection of colors, profiles, or textures.

C. Samples for Verification:

1. For each species and cut of lumber and panel products with non-factory-applied finish, with 1/2 of exposed surface finished, 50 sq. in. for lumber and 8 by 10 inches for panels.
2. For each finish system and color of lumber and panel products with factory-applied finish, 50 sq. in. for lumber and 8 by 10 inches for panels.

1.5 INFORMATIONAL SUBMITTALS

A. Sample Warranty: For manufacturer's warranty.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Stack lumber, plywood, and other panels flat with spacers between each bundle to provide air circulation. Protect materials from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

B. Deliver interior finish carpentry materials only when environmental conditions meet requirements specified for installation areas. If interior finish carpentry materials must be stored in other than installation areas, store only where environmental conditions meet requirements specified for installation areas.

1.7 FIELD CONDITIONS

A. Environmental Limitations: Do not deliver or install interior finish carpentry materials until building is enclosed and weatherproof, wet work in space is completed and nominally dry, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period.

B. Do not install finish carpentry materials that are wet, moisture damaged, or mold damaged.

1. Indications that materials are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
2. Indications that materials are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

A. Lumber: DOC PS 20 and the following grading rules:

1. NeLMA: Northeastern Lumber Manufacturers' Association, "Standard Grading Rules for Northeastern Lumber."
2. NHLA: National Hardwood Lumber Association, "Rules for the Measurement and Inspection of Hardwood & Cypress."
3. SPIB: The Southern Pine Inspection Bureau, "Standard Grading Rules for Southern Pine Lumber."

B. Factory mark each piece of lumber with grade stamp of inspection agency indicating grade, species, moisture content at time of surfacing, and mill.

1. For exposed lumber, mark grade stamp on end or back of each piece, or omit grade stamp and provide certificates of grade compliance issued by inspection agency.

C. Softwood Plywood: DOC PS 1.

D. Hardboard: AHA A135.4.

E. MDF: ANSI A208.2, Grade 130, made with binder containing no urea-formaldehyde resin.

2.2 WOOD-PRESERVATIVE-TREATED MATERIALS

A. Preservative Treatment by Pressure Process: AWPA U1; Use Category UC2.

1. Kiln dry lumber and plywood after treatment to a maximum moisture content of 19 and 18 percent respectively.
2. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.
3. For exposed items indicated to receive transparent finish, do not use chemical formulations that contain colorants or that bleed through or otherwise adversely affect finishes.
4. Do not use material that is warped or does not comply with requirements for untreated material.
5. Mark lumber with treatment-quality mark of an inspection agency approved by the American Lumber Standard Committee's Board of Review.

    a. For exposed lumber indicated to receive a stained or natural finish, mark end or back of each piece or omit marking and provide certificates of treatment compliance issued by inspection agency.

6. Mark plywood with appropriate classification marking of an inspection agency acceptable to authorities having jurisdiction.

    a. For exposed plywood indicated to receive a stained or natural finish, mark back of each piece.

7. Application: All interior lumber and plywood.

2.3 FIRE-RETARDANT-TREATED MATERIALS

A. General: For applications indicated, use materials complying with requirements in this article that are acceptable to authorities having jurisdiction, and comply with testing requirements; testing by a qualified testing agency.

B. Fire-Retardant-Treated Lumber and Plywood by Pressure Process: Products with a flame-spread index of 25 or less when tested according to ASTM E 84, with no evidence of significant progressive combustion when the test is extended an additional 20 minutes, and with the flame front not extending more than 10.5 feet (3.2 m) beyond the centerline of the burners at any time during the test.

1. Kiln dry lumber and plywood after treatment to a maximum moisture content of 19 and 15 percent respectively.

C. For exposed items indicated to receive a stained or natural finish, use chemical formulations that do not contain colorants, and provide materials that do not have marks from spacer sticks on exposed face.

D. Do not use material that does not comply with requirements for untreated material or is warped or discolored.

E. Identify fire-retardant-treated wood with appropriate classification marking of testing and inspecting agency acceptable to authorities having jurisdiction.

1. For exposed lumber indicated to receive a stained or natural finish, mark end or back of each piece or omit marking and provide certificates of treatment compliance issued by inspection agency.
2. For exposed plywood indicated to receive a stained or natural finish, mark back of each piece.

F. Application: Where indicated on drawings.

G. Upholstery: Products must meet Class A Flame Spread Index of 0-25 and Smoke-Developed Index 0-450 in accordance with ASTM E84

H. Foam for seating: Products must meet Class A Flame Spread Index of 0-25 and Smoke-Developed Index 0-450 in accordance with ASTM E84 and shall be tested in accordance with NFPA 286 and comply with criteria in section 803.1.2.1 of the VCC 2009

I. Dacron fiber wrap must meet Class A Flame Spread Index of 0-25 and Smoke-Developed Index 0-450 in accordance with ASTM E84.

2.4 INTERIOR TRIM

A. Hardwood Lumber Trim for Transparent Finish (Stain or Clear Finish):

1. Species and Grade: White Maple; NHLA.

2. Maximum Moisture Content: 13 percent.
3. Finger Jointing: Not allowed.
4. Gluing for Width: Use for lumber trim wider than 6 inches.
5. Veneered Material: Use for lumber trim wider than 6 inches.
6. Face Surface: Surfaced (smooth).
7. Matching: Selected for compatible grain and color.

B. Hardwood Moldings for Transparent Finish (Stain or Clear Finish): WMMPA HWM 2, N-grade wood moldings made to patterns included in WMMPA HWM 1.

1. Species: White Maple
2. Kiln-dried softwood or MDF, with exposed surfaces veneered with species indicated, may be used in lieu of solid wood.
3. Maximum Moisture Content: 9 percent.
4. Finger Jointing: Not allowed.
5. Matching: Selected for compatible grain and color.
6. Chair-Rail Pattern: HWM 297, 11/16-by-3-inch, as indicated on the Drawings.

2.5 FIELD FABRICATED WOOD BENCHE

A. Hardwood Lumber Trim for Transparent Finish (Stain or Clear Finish):

1. Species and Grade: White Maple; HNLA.

B. Hardwood Veneer Board for Transparent Finish (Stain or Clear Finish):

1. Veneer Board: FRT Plywood
2. Face Veneer Species and Cut: Plain-sliced White Maple.
3. Veneer Matching: Select for similar color and grain.
4. Thickness: As indicated on the Drawings.

C. Construct as indicated on the Drawings.

D. Upholstered Seat Cushion:

1. Seat cushion, 3 inches thick, to be made on 1/2 inch FRT plywood base with 2-1/2 inch thick foam, minimum 2.8 lb density, 60 lb ILD compression, wrapped with .75 oz Dacron polyester wrap attached to bench base with two (2) 2 inch Velcro strips full width of cushion.
2. Cushion style to be bullnose edge with cording at bottom/back edge against bench base. Split cushions as indicted on Drawings.

    a. Include cushion, fabric in shop drawings.

3. Provide upholstery for seat as follows:

    a. UP1: Architex *“* Spoonful*”*, color: Cherry, Width: 54” inches, Repeat: none, Content: 75% Vinyl face, 25% Polyester, Backing: 100% Polyester

b. Refer to finish schedule and Drawings for placements and extents.

2.6 MISCELLANEOUS MATERIALS

A. Fasteners for Interior Finish Carpentry: Nails, screws, and other anchoring devices of type, size, material, and finish required for application indicated to provide secure attachment, concealed where possible.

B. Glue: Aliphatic-Resin, polyurethane, or resorcinol wool glue recommended by manufacturer for general carpentry use.
1. Wood glue shall have a VOC content of 30 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

2.7 FABRICATION

A. Back out or kerf backs of the following members except those with ends exposed in finished work:

1. Interior standing and running trim except shoe and crown molds.

B. Ease edges of lumber less than 1 inch in nominal thickness to 1/16-inch radius and edges of lumber 1 inch or more in nominal thickness to 1/8-inch radius.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance.

B. Examine finish carpentry materials before installation. Reject materials that are wet, moisture damaged, and mold damaged.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Clean substrates of projections and substances detrimental to application.

B. Before installing interior finish carpentry, condition materials to average prevailing humidity in installation areas for a minimum of 24 hours unless longer conditioning is recommended by manufacturer.

3.3 INSTALLATION, GENERAL

A. Do not use materials that are unsound, warped, improperly treated or finished, inadequately seasoned, too small to fabricate with proper jointing arrangements, or with defective surfaces, sizes, or patterns.

B. Install interior finish carpentry level, plumb, true, and aligned with adjacent materials. Use concealed shims where necessary for alignment.

1. Scribe and cut interior finish carpentry to fit adjoining work. Refinish and seal cuts as recommended by manufacturer.
2. Where face fastening is unavoidable, countersink fasteners, fill surface flush, and sand unless otherwise indicated.
3. Install to tolerance of 1/8 inch in 96 inches for level and plumb. Install adjoining interior finish carpentry with 1/32-inch maximum offset for flush installation and 1/16-inch maximum offset for reveal installation.
4. Coordinate interior finish carpentry with materials and systems in or adjacent to it. Provide cutouts for mechanical and electrical items that penetrate interior finish carpentry.

3.4 ADJUSTING

A. Replace interior finish carpentry that is damaged or does not comply with requirements. Interior finish carpentry may be repaired or refinished if work complies with requirements and shows no evidence of repair or refinishing. Adjust joinery for uniform appearance.

3.5 CLEANING

A. Clean interior finish carpentry on exposed and semiexposed surfaces. Restore damaged or soiled areas and touch up factory-applied finishes, if any.

3.6 PROTECTION

A. Protect installed products from damage from weather and other causes during construction.

B. Remove and replace finish carpentry materials that are wet, moisture damaged, and mold damaged.

1. Indications that materials are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
2. Indications that materials are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

END OF SECTION 062023

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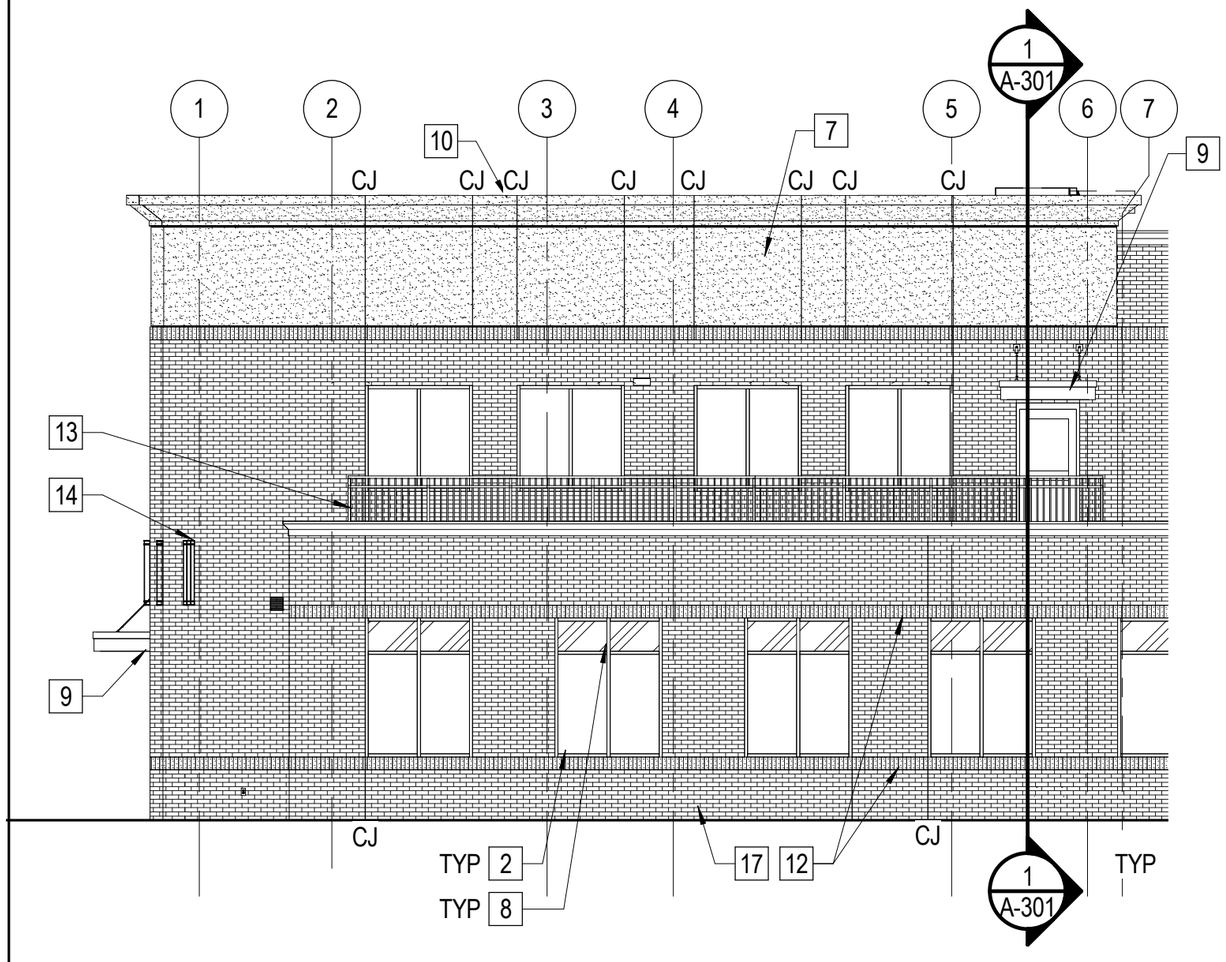
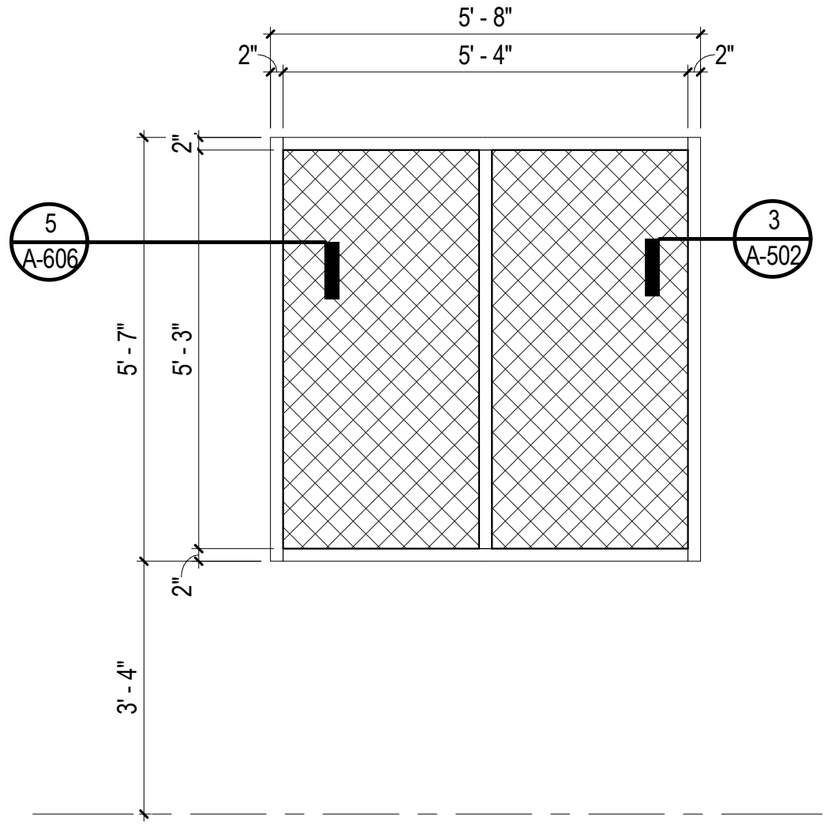


ENLARGED REVISED NORTH ELEVATION

SCALE: 1/8" = 1'-0"

*ALL ASSOCIATED SECTIONS AND DETAILS SHALL ADJUST ACCORDING TO THE UPDATED ELEVATION.



REVISED SF-16

SCALE: 1/2" = 1'-0"

RRMM ARCHITECTS, PC

HOPEWELL FIRE STATION
CITY OF HOPEWELL
HOPEWELL, VA

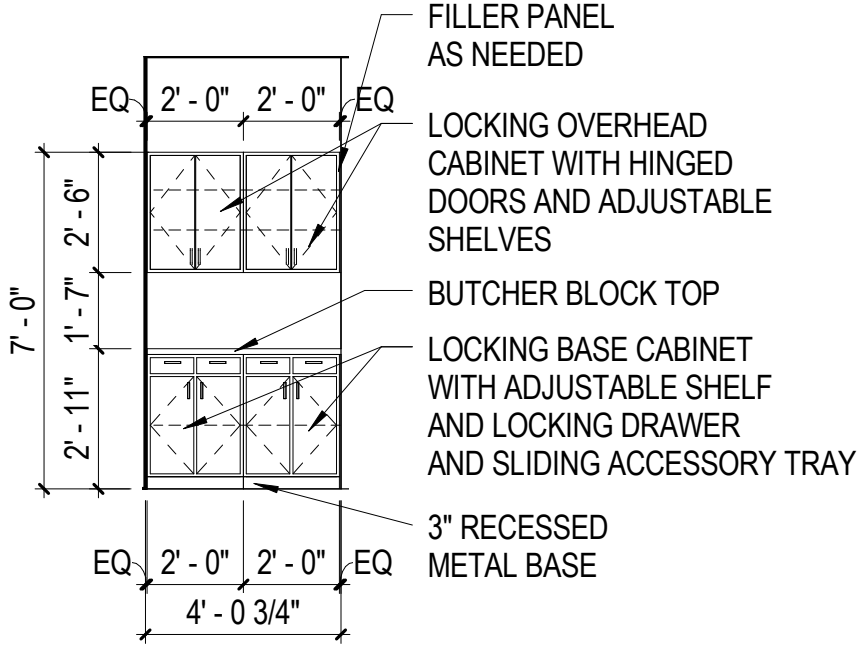
REVISED SF-16 ELEVATIONS

DATE	RRMM PROJECT NO
09.16.16	13232-00
DRAWN BY	CHECKED BY
KAO	KAO

DRAWING NUMBER

SKA-3

NOTE: BASIS OF DESIGN
PRODUCT - LISTA STORAGE
CABINETS: CONTACT
PATRICK GURRY
757-651-5003



ELEVATION - ARMORY A150

SCALE: 1/4" = 1'-0"

RRMM ARCHITECTS, PC

HOPEWELL POLICE STATION
CITY OF HOPEWELL
ADDRESS UNDETERMINED
HOPEWELL, VA

SKA-1 ARMORY STORAGE

DATE	ORIGINAL DWG NO
09/16/16	A-108
DRAWN BY	CHECKED BY
KMH	KMH

RRMM PROJECT NO	SKETCH NO
13232-00	SKA-1